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19th, 20th, 21st and 22nd
ANNUAL REPORTS

OF THE

State Inspector of
Coal Mines

1931 to 1934 Inclusive



1935



THE BRADFORD-ROBINSON PTC. CO., DENVER

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State Inspector of
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THE BRADFORD-ROBINSON PTG. CO., DENVER

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JAMES DALRYMPLE

(Died October 10, 1934)

On October 10, 1934, Mr. James Dalrymple, State Inspector of Coal Mines, was returning from a trip of inspection. He stopped at Florence, Colorado, and as he stepped off from the curbing to cross the street he was struck by an automobile which came from around a corner, injuring him so severely that he died almost instantly.

The death of Mr. Dalrymple is a severe loss to the coal mining industry. He was an able and efficient official, under whose administration conditions in the coal mines were vastly improved. He was appointed Deputy Inspector in the fall of 1909 and later, in the spring of 1910, he was made Chief Inspector. He had a thorough knowledge of coal mining and as an inspector gained a national reputation. He was fearless, both in cases of disaster or when it came to the safeguarding of those engaged in the coal mining industry. He was always open to conviction and readily invited discussions pertaining to the safety in coal mines. One of the first acts after he assumed charge of the coal mine inspection department was, with the cooperation of the coal mine owners, to draft a new set of laws to meet the requirements for a more effective safeguarding of life and property. The results more than repaid the effort. In 1913 the present coal mining laws were enacted. This resulted in better underground working conditions, reduction of fatal and non-fatal accidents.

When Mr. Dalrymple was appointed Chief Inspector the death rate in our coal mines was ten per thousand employed. Through his untiring efforts this was reduced to two and two-tenths per thousand employed in 1933. His heart and soul was in his work. His energy never flagged in his efforts to carry out the provisions of the coal mining laws. He was honest and straightforward, of great moral and physical courage and was at all times fair to both labor and employer. He performed his duties sincerely and efficiently, always alert to the work he had in hand.

It seems a strange twist of fate that he who had gone through so many serious mine explosions and mine fires, jeopardizing his life to rescue trapped men or bring to the surface the dead and mangled, should be killed in the open street.

It was my privilege to work under Mr. Dalrymple for nearly twenty-five years. His death is a personal loss as he was always considerate and kind to me and treated me more as a friend than a mere employee. I was at his side in the many and constant efforts made by him to keep the department on the highest level of efficiency and as the coal industry went down with the depression and he was not able to maintain the high standard he built up, he grieved deeply. He was a man of fine character, an able official and a sincere friend; very charitable and generous to those who appealed to him, and there were many who came to him.

In kindly remembrance these lines are dedicated.

ADA R. TIBBITS,
Chief Clerk, State Inspector of Coal Mines.

LETTER OF TRANSMITTAL

Denver, Colorado, December 31, 1935.

To His Excellency,
ED C. JOHNSON,
Governor of Colorado.

Sir: Herewith I have the honor to submit to you, in accordance with Section 3475 of the Compiled Laws of Colorado of an Act entitled "Coal Mining Laws," the nineteenth, twentieth, twenty-first and twenty-second Annual Report of this department.

The period covered being the calendar years 1931, 1932, 1933 and 1934.

Respectfully,
THOMAS ALLEN,
State Inspector of Coal Mines.

PERSONNEL OF THE COAL MINE INSPECTION DEPARTMENT

JAMES DALRYMPLE, Chief Inspector.....Denver, Colo.
 ADA R. TIBBITS, Chief Clerk.....Denver, Colo.
 MAX M. GREENWALD, Assistant Clerk.....Denver, Colo.

FIELD FORCE AND DISTRICTS

W. M. LAURIE, 512 Ash St., Trinidad, Colo.....District No. 1
 All the mines in Las Animas County excepting the Star,
 Torrid and Vickers mines, which are in District No. 2.

GEORGE C. DALRYMPLE, Box 645, Walsenburg, Colo.....District No. 2
 All mines in Huerfano and Fremont Counties and the
 three mines listed in District No. 1.

JAS. W. GRAHAM, Lafayette, Colo.....District No. 3
 All mines in Boulder, Moffat and Routt Counties.

HUGO H. MACHIN, 2447 5th St., Boulder, Colo.....District No. 4
 All mines in Elbert, El Paso, Jackson, Jefferson, Larimer
 and Weld Counties.

FINLAY McCALLUM, 348 White Ave., Grand Junction,
 ColoradoDistrict No. 5
 All mines in Archuleta, Delta, Garfield, Gunnison, La
 Plata, Mesa, Montezuma, Montrose, Ouray, Pitkin, Rio
 Blanco and San Miguel Counties.

FINANCIAL STATEMENT SHOWING RECEIPTS AND DISBURSEMENTS ANNUALLY, 1931-1934

	1931	1932	1933	1934
RECEIPTS				
Tax collected on coal mined.....	\$28,602.55	\$23,159.21	\$21,994.00	\$20,022.08
From sales of copies of coal mining laws.....	89.25	48.75	43.65	76.75
Refunds .....	.....	107.39	178.82	19.17
Balance brought forward from 1930.....	11,241.43	6,497.73	2,923.93	1,585.10
TOTAL	\$39,933.23	\$29,813.08	\$25,140.40	\$21,703.10
DISBURSEMENTS				
Salaries for entire department.....	\$24,550.00	\$21,243.03	\$19,966.69	\$15,114.18
Fatal accident investigators, per diem and exp. ....	.....	28.40	27.70	.....
Railroad transportation	195.30	199.15	223.27	199.74
Automobile mileage	4,317.22	2,934.04	1,841.38	1,902.80
Board of Examiners .....	.....	.....	.....	268.54
Printing	799.08	95.00	148.53	154.79
Stationery and office supplies.....	275.20	210.85	163.71	183.89
Postage	522.67	667.34	367.33	322.44
Telephone toll calls, entire department.....	100.30	57.78	33.65	44.23
Telegraph service	11.54	20.98	18.30	10.85
Instruments	40.92	16.00	22.32	21.58
Hotel	834.00	434.75	336.15	343.75
Meals	1,388.30	678.65	305.22	368.25
Miscellaneous	400.97	302.18	101.05	167.63
TOTAL	\$33,435.50	\$26,888.15	\$23,555.30	\$19,102.67
Balance on Hand, December 31, 1931.....	1931 \$ 6,497.73	Dec. 31 1932 \$ 2,923.93	1933 \$ 1,585.10	1934 \$ 2,600.43

INTRODUCTION

To the nineteenth, twentieth, twenty-first and twenty-second Annual Reports of the State Coal Mine Inspection Department is herewith submitted.

During these years complete office records were kept, but the reduced income from a much less than average production made it impossible to publish the regular Annual Report in the standard book forms used in all previous years.

The adoption of a license fee for all mines, together with a somewhat increased tonnage and better collection of the four-mill tax from which the major part of the income of the department is derived, have resulted in the accumulation of enough financial reserve to take care of the expense of this publication covering the four-year period from 1931 to 1934, inclusive.

This issue will bring the Coal Mining Department reports up to date. The tables herein contained are grouped together in consecutive years.

Some smaller changes have been made in assembling the records, but all important data necessary to make a complete record will be found in this volume.

The completeness of the information contained in this report reflects great credit on the clerical staff which had the diligence and interest in their work, with little hope that their efforts would be of any avail, to keep the detailed data so well arranged and filed as to make the publication readily possible after so long an interval of stagnation due to non-activity in the industry itself.

THOMAS ALLEN,
State Inspector of Coal Mines.

SUMMARY OF WORK DONE BY FIELD FORCE DURING 1931-1934

	1931	1932	1933	1934
Total number of inspections made	1,044	832	624	788
Total number of mines inspected	348	413	421	429
Number of fatal accidents investigated	29	29	20	21
Number of inquests attended....	22	28	13	19
Number of complaints investigated	59	48	54	39
Prosecutions	3	2	-----	-----
Miles travelled by automobile..	51,572	34,975	22,167	24,400
Cost of Automobile travel.....	\$4,317.22	\$2,939.04	\$1,841.38	\$1,902.80
Cost of railroad travel.....	\$ 195.30	\$ 199.15	\$ 223.27	\$ 199.74
Number of scales inspections....	8	6	33	24

THOMAS ALLEN, E.M.

On October 20, 1934, Mr. Thomas Allen, of Grand Junction, Colorado, was provisionally appointed State Inspector of Coal Mines. He was certified to act permanently as Chief Inspector on November 23, 1934, after having passed highest in a competitive examination given by the Civil Service Commission.

Mr. Allen received his training as a mining engineer in England. He came to Wyoming in 1907 and was engaged as a coal mining engineer by several companies. His record shows great ability and practical experience in his line of work. There is no question but he will be an able administrator of the Coal Mine Inspection Department.

ADA R. TIBBITS,
Chief Clerk, State Inspector of Coal Mines.

RECTORIO OF COAL MINES IN THE STATE OF COLORADO FOR THE YEAR ENDING DECEMBER 31, 1934

TABLE A—1931-1932

SHOWING BY COMPANIES: Total number of tons produced and number of men employed; number of fatal accidents; number of non-fatal accidents.

COMPANIES	Total Production, 1931	Number of Men Employed, 1931	Number of Fatal Acci- dents, 1931	No. of Non- Fatal Acci- dents, 1931	Total Production, 1932	Number of Men Employed, 1932	Number of Fatal Acci- dents, 1932	No. of Non- Fatal Acci- dents, 1932
Alnsworth, H. A.....	696	2	.....	.....	.....	.....	.....	.....
Alnsworth & Lewis.....	.....	.....	.....	.....	679	3	.....	.....
Alamo Coal Co.....	95,913	143	.....	.....	68,984	95	.....	5
Allan, David.....	67,412	57	.....	.....	65,507	75	.....	16
Altitude Fuel Co.....	.....	.....	.....	.....	2,345	9	.....	2
American Independent Coal Co.....	.....	.....	.....	.....	2,000	8	.....	.....
American Smelting & Refining Co.....	82,076	144	1	7	58,183	117	.....	8
Amos Coal Co.....	291	1	.....	.....	423	1	.....	.....
Anchor Coal Co.....	486	2	.....	.....	823	2	.....	.....
Anderson, Frank H.....	.....	.....	.....	.....	70	1	.....	.....
Anderson, Stuart.....	.....	.....	.....	.....	265	2	.....	.....
Antonita & Bellini.....	.....	.....	.....	.....	315	2	.....	.....
Appleton Coal Co.....	1,082	2	.....	.....	.....	.....	.....	.....
Archuleta, L., Coal Co.....	35	2	.....	.....	1,636	3	.....	.....
Audin, Clement.....	.....	.....	.....	.....	.....	.....	.....	.....
Ayshire Coal Co.....	.....	.....	.....	.....	794	3	.....	.....
Aztec Coal Mining Co.....	17,771	49	.....	4	8,872	46	.....	.....
Babson Coal Co.....	2,042	3	.....	.....	1,550	3	.....	.....
Balnton, John.....	102	1	.....	.....	.....	.....	.....	.....
Bald Coal Co.....	.....	.....	.....	.....	1,009	10	.....	1
Baldwin Fuel Co.....	439	1	.....	.....	.....	.....	.....	.....
Baldy Coal Co.....	1,492	3	.....	1	300	1	.....	2
			.....	.....	1,770	3	.....	.....

Barbour Coal Co.	69,967	94	.....	5	42,738	142	.....	3
Barker, Wright	1,547	2	.....	.....	2,696	3	.....	.....
Barnell, Geo. M.	4,193	5	.....	.....	2,252	5	.....	2
Batchelor, Chas.	.....	.....	.....	.....	426	2	.....	.....
Baudino & Co.	2,495	3	.....	.....	2,569	3	.....	.....
Beach, Allan & Associates	275	2	.....	.....	.....	.....	.....	7
Bear Canon Coal Co.	55,470	89	1	7	27,947	79	.....	.....
Bear River Coal Co.	29,908	63	.....	9	45,411	66	.....	13
Bear, Tony	.....	.....	.....	.....	1,283	4	.....	.....
Beer Coal Co.	3,869	9	.....	6	887	10	.....	2
Bellina & Antonita	344	1	.....	.....	.....	.....	.....	.....
Bellodi, Angelo	260	1	.....	.....	234	2	.....	.....
Bennett Coal Co.	.....	.....	.....	.....	668	2	.....	.....
Bennett, N. D.	280	2	.....	.....	.....	5	.....	.....
Black Cat Coal Co.	.....	.....	.....	.....	596	.....	.....	.....
Black Diamond Coal Co.	3,712	7	.....	4	2,171	4	.....	.....
Black Diamond Fuel Co.	21,152	45	.....	6	58,385	55	.....	15
Black Hawk Coal Co.	.....	.....	.....	.....	4,146	10	.....	.....
Blue Bird Mines, Inc.	7,176	10	1	4	3,083	9	.....	4
Blue Blaze Coal Co.	299	3	.....	.....	.....	.....	.....	.....
Bluff Springs Leasing Co.	14,539	33	2	5	5,876	22	.....	4
Blunt & Audin	542	2	.....	.....	.....	.....	.....	.....
Boaglio, Bert	650	2	.....	.....	332	3	.....	.....
Boaglio Coal Co.	.....	.....	.....	.....	207,515	120	3	39
Boulder Valley Coal Co.	251,064	148	.....	24	80	1	.....	.....
Bowman, Guillermo	.....	.....	.....	.....	161	1	.....	.....
Boyd, Claude	.....	.....	.....	.....	42	2	.....	.....
Braden, Olney	105	2	.....	.....	577	5	.....	.....
Brewster Mining Co.	.....	.....	.....	.....	.....	.....	.....	.....
Brown, Arthur	185	1	.....	.....	2,378	8	.....	.....
Buddy Coal Co.	.....	.....	.....	.....	400	2	.....	.....
Bulck Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....
Burdick Coal Co.	545	3	.....	.....	.....	.....	.....	.....
Burro Creek Coal Co.	49	1	.....	.....	.....	.....	1	.....
*Byrnes, Peter	.....	.....	.....	.....	.....	.....	.....	.....
Cactus Coal Co.	908	4	.....	.....	230	3	.....	.....
Caddell Coal Co.	794	9	.....	1	1,253	8	.....	.....
Caldarella Coal Co.	.....	.....	.....	.....	16,033	18	.....	3
Caliente Coal Co.	52,647	140	.....	11	39,251	147	.....	5
Calumet Fuel Co.	286,821	350	1	31	192,261	283	2	24

TABLE A—1931-1932—Continued

COMPANIES	Total Production, 1931	Number of Men Employed, 1931	Number of Fatal Acci- dents, 1931	No. of Non- Fatal Acci- dents, 1931	Total Production, 1932	Number of Men Employed, 1932	Number of Fatal Acci- dents, 1932	No. of Non- Fatal Acci- dents, 1932
Canon Imperial Coal Co.	9,386	26	.....	.....	1,624	24	.....	4
Canon Liberty Coal Co.	.....	.....	.....	.....	349	6	.....	5
Canon Monarch Coal Co.	9,242	27	.....	.....	13,505	25	.....	5
Canon Quality Coal Co.	33,894	86	.....	.....	7,823	26	.....	11
Canon Reliance Coal Co.	.....	.....	.....	.....	47,628	86	.....	.....
Carbon Creek Coal Co.	598	1	.....	.....	388	1	.....	.....
Carestia, Paul.	.....	.....	.....	.....	650	1	.....	.....
Cash & Carry Coal Co.	200	2	.....	.....	.....	.....	.....	.....
Castle Coal Co.	5,587	7	.....	.....	4,653	6	.....	1
Castle Rock Coal Co.	525	2	.....	1	1,004	2	.....	.....
Centennial Coal Co.	9,833	42	.....	.....	.....	.....	.....	.....
Chergo, Tom.	75	1	.....	.....	130	1	.....	.....
Church & Schlegle	.....	.....	.....	.....	43	3	.....	.....
Clark Coal Co.	3,451	4	.....	.....	1,809	3	.....	.....
Clark Gulch Coal Co.	.....	.....	.....	.....	364	3	.....	.....
Clayton Coal Co.	236,126	256	.....	38	234,410	288	1	54
Coal Gulch Coal Co.	193	2	.....	.....	475	1	.....	.....
Colona Coal Co.	146	1	.....	.....	.....	.....	.....	.....
Colorado Fuel & Iron Co.	1,129,188	2,280	4	227	709,001	1,385	1	82
Colorado Pinnacle Coal Co.	1,008	6	.....	1	.....	.....	.....	.....
Colorado Springs Co.	46,092	65	.....	8	40,286	64	.....	3
Colorado & Utah Coal Co.	103,020	160	.....	17	101,824	133	.....	31
Conrad, D. M.	.....	.....	.....	.....	371	1	.....	.....
Consolidated Coal & Coke Co.	106,705	109	.....	6	102,684	117	1	7
Converse Coal Co.	.....	.....	.....	.....	461	1	.....	.....
Cook, O. C.	1,568	15	.....	.....	207	4	.....	.....
Corley Coal Co.	26,843	31	.....	10	28,670	34	.....	17

[illegible]

TABLE A—1931-1932—Continued

COMPANIES	Total Production, 1931	Number of Men Employed, 1931	Number of Fatal Acci- dents, 1931	No. of Non- Fatal Acci- dents, 1931	Total Production, 1932	Number of Men Employed, 1932	Number of Fatal Acci- dents, 1932	No. of Non- Fatal Acci- dents, 1932
Fitzsimmons Coal Co.	499	2						
Ford, J. D.	129	1						
Foreman, Thos. D.	384	1			635	1		
Franceville Fuel Co.	5,283	15		4				
Frisco Coal Co.	385	3			1,493	3		
Fruth, Geo.	649	9		2	1,382	9		1
Fruth & Micheletti	697	2			380	1		
Gabriella, Thos.	203	3						
Gallagher, J. C.					290	2		
Gantz, D.	104	2			194	2		
Gardner, Kenneth								
Garfield Coal Co.	208	3			1,042	2		
Gearhart, Ballard	7,890	11		2	6,340	10		1
Gelwick Coal Co.	7,027	7		1	7,184	9		
Gem Coal Co.	821	2			402	3		
					656	4		
George, S., & Sons.	1,234	10			1,258	4		
Gilmour Coal Co.	297	15		1				
Gilson Asphaltum Co.	7,452	9			6,869	8		2
Giordino Coal Co.					493	3		
Giuliano & Carphina					15,224	47		13
Giuliano Coal Co.	5,697	23		9				
Glover, W. R.					10	1		
Golden Dawn Coal Co.	612	2						
Good Fuel Co.	18,313	26		19	18,920	26		13
Gordon Coal Co.	37,145	58		5	45,870	53		2
Grasso Coal Co.	176	2			473	2		
Gray, L. J.	321	1		1	324	1		

Gray, W. W.	6,344	1	511	2
Green, Thomas	70	1	839	2
Green Valley Coal Co.	13,973	3	5,565	6
Greenwood & Arnott			12,601	17
Griffiths Coal Co.				
Hackman, Geo.	320		977	3
Hardman & Son	31		65	1
Harrington, A. L.	756		855	4
Hart Coal Co.	250			
Harvey, M. R., & Sons				
Hayden Coal Co.	91,672	1	90,083	112
Hayden Valley Mutual Coal Co.	1,200	13	1,199	3
Hendricks, Robert	650			
Hice Coal Co.			594	2
Hidden Treasure Coal Co.	2,350		1,442	3
High View Coal Co.	5,564			
Hollingsworth, Jno.	369	1	5,769	7
Home Fuel & Supply Co.	3,759		307	3
Hopper, A. F.			2,948	5
Horace Anthracite Co.	24,761	4	593	1
Horton Coal Co.	510		25,390	78
Howells Fuel Co.				
Huerfano Coal Co.	48,895		264	1
Hunter, J. B.	553	11	3,009	14
Hunt, Wm. M.	501		51,750	108
Ideal Coal & Trading Co.			245	2
Imperial Coal Co.	158,787		115	1
Ince, Bud	90	17	123,747	141
Independent Coal Co.	2,580		80	2
James Brothers	600	1	2,009	3
Jarvis Coal Co.			475	2
Jeffries Coal Co.	6,148		174	3
Jewell Collieries Corp.	33,542	7	4,265	5
Jimenez, Manuel		49	18,614	45
Joerger Coal Co.	850	2	15	1
Jones Coal Co.			1,467	4
Jones & Trachta	857	1	361	1
Juanita Coal & Coke Co.	33,597	1	32	1
Kattnig, Martin		44	27,186	36
Kennedy, H. A.	942	2	724	4
			338	2

TABLE A—1931-1932—Continued

COMPANIES	Total Production, 1931	Number of Men Employed, 1931	Number of Fatal Acci- dents, 1931	No. of Non- Fatal Acci- dents, 1931	Total Production, 1932	Number of Men Employed, 1932	Number of Fatal Acci- dents, 1932	No. of Non- Fatal Acci- dents, 1932
Keystone Coal Co.	44,414	83	.....	11	39,184	69	.....	8
Klikus Coal Co.	.....	.....	.....	.....	100	3	.....	.....
King & Mitchell	.....	.....	.....	.....	921	1	.....	.....
Knapp, Richard	45	2	.....	.....	.....	.....	.....	.....
Knox Coal Co.	50	3	.....	1	.....	.....	.....	.....
Kojak Coal Co.	60	9	.....	4	.....	.....	.....	.....
Kovak & Skoda	939	2	.....	.....	2,673	3	.....	.....
Ko-Z Coal Co.	182	6	.....	.....	3,543	8	.....	.....
Kurie Coal Co.	13,755	25	.....	10	6,434	13	.....	1
Leader Coal Co.	.....	.....	.....	.....	1,805	5	.....	.....
Le Donne, Jas.	500	3	.....	.....	1,165	4	.....	.....
Leonard, M. F.	114	1	.....	.....	175	1	.....	.....
Leyden Lignite Co.	114,825	82	1	18	109,557	87	1	17
Liberty Bell Coal Co.	678	2	.....	.....	.....	.....	.....	.....
Liberty Coal Co.	370	2	.....	.....	.....	.....	.....	.....
Liley Coal & Land Co.	43,753	42	.....	5	38,479	39	.....	5
Lion Canon Coal Co.	1,188	2	.....	.....	.....	.....	.....	.....
Lippis & Bosco Coal Co.	1,250	5	.....	.....	1,915	6	.....	.....
Louisville-Lafayette Coal Co.	55,434	58	.....	14	91,987	82	2	21
Lowe Coal Co.	.....	.....	.....	.....	2,151	5	.....	.....
Lowery & Spence	400	2	.....	.....	315	1	.....	.....
Lucia, B. C.	.....	.....	.....	.....	282	2	.....	.....
McBroom, Chas.	130	1	.....	.....	96	1	.....	.....
McCargish, Ed.	97	1	.....	.....	114	1	.....	.....
McCroskey, R. Z.	106	1	.....	.....	.....	.....	.....	.....
McDonald Coal Co.	.....	.....	.....	.....	1,819	4	.....	7
McGinley, Wm.	1,502	2	.....	.....	2,175	2	.....	.....

McMillin, Geo.	153,901	171	1	19	463	2	19
McNeil Coal Corp.	837	2		132,377	168		3
McShane & Ritter	35	4		1,363	2		
Mancos Coal & Fuel Co.	153			896	3	1	
Mancos Hill Coal Co.	519			623	4		
Marriott, Wm.	1			161	3		
Marsh Coal Co.	871			306	1		
Martinez, Ralph	519			305	1		
Martorano & Son	1,589	5		129	2		
Mascot Coal, Oil & Clay Co.	3,840	8		809	4		1
Mattivi & Son	80	2		2,000	3	1	
Medina, Pete	16,541	32		14,111	29		6
Micheli, Pio	1,071	4		1,803	6		
Midwest Red Glow Co.	1,222	7		280	2		
Miller Coal Co.	11,544	25		19,065	24		1
Minnequa Fuel Co.	122,071	190		124,825	144		38
Moffat Coal Co.	1,242	3		6,631	23		1
Monroe Coal Co.	2,045	6		706	2		
Morgan Coal Co.	170			1,546	6		
Morgan, Wm.	204						
Morris, Geo. W.	65						
Mountain States Fuel Co.	1,078	2		514	2		
Mountain View Coal Co.				220	2		
Mt. Lincoln Coal Co.							
Mundell, J. W.	88	1					
Murr, P. A.	17,878	60		351	2		
Murrell Coal Co.	303,450	302		3,224	70		2
Mutual Coal Co.	2,340	8		165	2		
National Fuel Co.				244,664	286		48
Newlan Creek Coal Co.				3,395	10		2
New Ross Coal Co.				2,858	7		
Nigerhead Mining Co.	127	2		1,276	16		
Nix, C. E.	40,031	49		41,127	53		5
North Park Coal Co.							
North Star Coal Co.				119	4		
Nossaman, W. J.	12,016	31		85	1		
Oakdale Coal Co.				3,317	23		3
Oberding, W. J.	4,162	7		203	1		
Ohio Creek Coal Co.				1,772	5		

TABLE A—1931-1932—Continued

COMPANIES	Total Production, 1931	Number of Men Employed, 1931	Number of Fatal Acci- dents, 1931	No. of Non- Fatal Acci- dents, 1931	Total Production, 1932	Number of Men Employed, 1932	Number of Fatal Acci- dents, 1932	No. of Non- Fatal Acci- dents, 1932
O. K. Coal Co.....	5,032	13	.....	.....	4,245	10	.....	1
Oliver Coal Co.....	36,232	45	.....	.....	46,704	41	.....	5
Orecchio Coal Co.....	8,063	13	.....	.....	7,694	25	.....	4
Overcamp, Walter	72	2	.....	.....	497	3	.....	.....
Owen, R.....	1,641	3	.....	.....	49	1	.....	.....
Owen, W. H.....	566	2	.....	.....	.....	.....	.....	.....
Pallsade Clean Heat Coal Co.....	8,713	15	.....	.....	6,335	10	.....	2
Panther Coal Co.....	.....	.....	.....	.....	25	3	.....	.....
Paonla Farmers Coal Co.....	3,298	3	.....	.....	1,859	3	.....	.....
Payan Bros.....	79	1	.....	.....	.....	.....	.....	.....
Peachey Coal Co.....	20,117	40	.....	.....	16,955	43	.....	5
Peacock Coal Co.....	433	2	.....	.....	709	3	.....	.....
Peerless Coal Co. (Boulder)	783	4	.....	.....	1,738	5	.....	.....
Peerless Coal Co. (La Plata)	.....	.....	.....	.....	1,278	3	.....	.....
Perino Coal Co.....	449	4	.....	.....	149	3	.....	1
Petry, S., Coal Co.....	870	3	.....	.....	.....	.....	.....	.....
Petry & Fiorini.....	.....	.....	.....	.....	2,586	5	.....	.....
Phelan & Shaver.....	1,421	3	.....	.....	404	2	.....	.....
Phillipp & Carnahan.....	.....	.....	.....	.....	486	2	.....	.....
Phoenix Fuel Co.....	8,258	29	.....	.....	5,586	28	.....	.....
Pickett, L. W.....	.....	.....	.....	.....	792	4	.....	.....
Pikes Peak Fuel Co.....	241,655	168	.....	.....	215,441	160	.....	23
Pinnacle-Kemmerer Fuel Co.....	28,767	75	.....	.....	31,991	63	.....	7
Pittsburgh Coal Co.....	1,028	2	.....	.....	1,216	4	.....	.....
Piacita Coal Mining Co.....	10,175	16	.....	.....	1,852	9	.....	.....
Pollard, C. F.....	1,924	2	.....	.....	2,085	2	.....	.....

Pollo, John, Jr.	30	1				1,136	2		
Powell, L. V.	1,183	3				119	1		
Pritchard, Chas.	46,484	82			7	740	2		
Pryor Coal Mining Co.						42,942	95	1	
Rasmussen, H. J.						75	1		
Rauman Coal Co.	1,587	2				1,460	2		
Red Canon Coal Co.	5,134	5			1	3,927	4		1
Reed & Maylan	5,570	3							
Reinart, R. C.	133	1				747	1		
Rice, Arthur						40	1		
Rice, Chas. R.	83	1				90	1		
Richardson Coal Co.	907	2				886	2		
Richardson, Dan	396	1							
Rifle Coal Mines, Inc.	1,413	2				456	2		
Rigglo, Nick	687	2				519	2		
Riggs, W. E.	112	3				1,451	3		
Ritchneg, John	906	2				1,108	2		
Riverside Coal Co.	2,730	6				1,846	5		2
Roberson Coal Co.						780	2		
Rocchio Coal Co.	6,989	11			3	6,346	11		1
Rocky Mountain Fuel Co.	716,277	736	3		121	636,851	669		113
Roggero, Joseph	110	2				332	3		
Rolfe, George	5,880	7				6,209	6		
Rollins Fuel Co.						256	2		
Ross Coal Co.	868	4							
Royers Coal Co.	200	2							
Rudy Coal Co.	119	2							
Russell, W. E., Coal Co.	64,372	72			12	92,406	66	1	21
Sagrillo, Frank						671	2		1
Sagrillo & Clark Coal Co.	250	2							
San Isabel Coal Mining Co.	111	1							
Santa Fe Coal Co.	829	6				1,288	3		
Santistevan, Apolonio	20	2							
Schultz, Herman	310	1				179	1		
Seven Points Coal Co.	8,428	6							
Shamrock Coal Co.	87,885	90			6	62,925	86		10
Shay, J. O.						394	2		
Shelton, H. D.						35	1		
Shew & Bryan						460	2		
Slagle, E. G.	205	2				410	2		

TABLE A—1931-1932—Continued

COMPANIES	Total Production, 1931	No. of Men Employed, 1931	Number of Fatal Acci- dents, 1931	No. of Non- Fatal Acci- dents, 1931	Total Production, 1932	No. of Men Employed, 1932	Number of Fatal Acci- dents, 1932	No. of Non- Fatal Acci- dents, 1932
Smith, H. J., Coal Co.	733	2	.....	.....	.....	.....	.....	.....
South Canon Mine Leasing Co.	13,002	11	.....	1	.....	.....	.....	.....
South Park Coal Co.	200	4	.....	.....	.....	.....	.....	.....
Sowers Coal Co.	.....	.....	.....	.....	105	4	.....	.....
Spencer, Geo. S.	924	2	.....	.....	798	2	.....	.....
Stakish, Geo.	.....	.....	.....	.....	.....	.....	.....	.....
Standard Coal Co.	380	2	.....	.....	105	2	.....	.....
Star Coal Co.	350	3	.....	.....	360	2	.....	.....
States Hall Coal Co.	681	2	.....	.....	501	2	.....	.....
Steel, Geo., & Co.	3,731	7	.....	.....	3,801	8	.....	1
.....	.....	.....	.....	.....	125	1	.....	.....
Stokes, W. D.	2,343	6	.....	.....	2,043	4	.....	1
Stove Canon Coal Co.	2,462	4	.....	.....	2,458	4	.....	.....
Storz Coal Co.	.....	.....	.....	.....	75	1	.....	.....
Sunrise Coal Co.	1,850	15	.....	.....	2,370	7	.....	.....
Sunshine Coal Co.	3,538	3	.....	.....	2,606	3	.....	.....
Sunset Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....
Superior Fuel Co.	229	2	.....	.....	864	9	.....	.....
Sweet Bros. Coal Co.	393	2	.....	.....	312	2	.....	.....
Talarico Bros.	470	4	.....	.....	40	2	.....	.....
.....	.....	.....	.....	.....	360	2	.....	.....
Taylor & Bierce	311	1	.....	.....	404	3	.....	.....
Temple Fuel Co.	114,286	198	1	29	90,110	205	2	17
Thomas Coal Co.	546	2	.....	.....	275	3	.....	.....
Thomas Mining Co.	6,538	8	.....	.....	12,756	20	.....	3
Thor Fuel Co.	7,538	55	.....	1	7,820	69	.....	.....
Tipotsch, Frank	552	1	.....	.....	1,482	1	.....	.....
Torrid Coal Co.	12,568	27	1	6	6,585	10	1	3
Triangle Coal Co.	5,049	7	.....	1	3,037	5	.....	1

Trinidad Coal Co.....	184	3	.....	.....	150	2	.....	.....
Trout Creek Coal Co.....	359	1	.....	.....	820	14	.....	.....
Unity Coal Co.....	.....	3	.....	.....	1,577	2	.....	.....
Ute Coal Co.....	1,685	2	.....	.....	1,235	3	.....	.....
Valley View Coal Co.....	1,022	.....	.....	.....	.....	.....	.....	.....
Veol, Louis.....	.....	.....	.....	.....	50	2	.....	25
Vickers Coal Co.....	52,103	65	.....	.....	60,791	84	1	.....
Victor-American Fuel Co.....	492,404	89	2	.....	408,244	773	3	124
Vigil Coal Co.....	87	2	.....	.....	35	2	.....	.....
Vowell, T. M.....	200	2	.....	.....	71	2	.....	.....
Webber, J. E.....	250	1	.....	.....	128	1	.....	.....
Weberkirch, Kaspar.....	1,238	2	.....	.....	160	1	.....	.....
Wertz & Sunderland.....	356	3	.....	.....	.....	.....	.....	.....
Western Hard Coal Co.....	.....	.....	.....	.....	2,757	16	.....	.....
Western Star Coal Co.....	451	4	.....	.....	1,205	2	.....	.....
White Ash Coal Co.....	2,146	4	.....	.....	2,990	5	.....	.....
White Rose Coal Co.....	.....	.....	.....	.....	260	3	.....	.....
Whitlock, E. E.....	91	1	.....	.....	210	2	.....	.....
Willden Coal Co.....	413	2	.....	.....	243	2	.....	.....
Williams Coal Co.....	1,813	4	.....	.....	1,251	3	.....	.....
Willie Coal Co.....	584	1	.....	.....	.....	.....	.....	.....
Wilson, James.....	1,514	4	.....	.....	2,446	2	.....	.....
Winton Coal Co.....	896	3	.....	.....	150	2	.....	.....
Wisconsin Coal Co.....	.....	.....	.....	.....	287	2	.....	.....
Wood Coal Co.....	.....	.....	.....	.....	.....	.....	.....	.....
Yellico, Joseph.....	.....	.....	.....	.....	498	2	.....	.....
Yingling, Chas.....	771	2	.....	.....	423	1	.....	.....
Ziesenis, Henry.....	1,682	2	.....	.....	1,426	2	.....	.....
Zimmerman, E. H.....	1,046	3	.....	.....	582	2	.....	.....
Total State of Colorado.....	6,604,063	10,015	22	1,238	5,616,525	8,786	29	1,083

*No operation reported.

†Cleaning up old mine.

TABLE A—1933-1934

SHOWING BY COMPANIES: Total number of tons produced and number of men employed; number of fatal accidents; number of non-fatal accidents.

COMPANIES	Total Production, 1933	No. of Men Employed, 1933	Number of Fatal Acci- dents, 1933	Total Production, 1934	No. of Men Employed, 1934	Number of Fatal Acci- dents, 1934	No. of Non- Fatal Acci- dents, 1934
Adair, Ivor	221	2	.....	478	1	.....	.....
Ainsworth, H. A.	440	2	.....	168	2	.....	.....
Alamo Coal Co.	28,449	52	2	52,958	96	.....	5
Albion Coal Co.	75	4	.....	.....	.....	.....	.....
Allan, David	53,117	76	.....	58,684	93	.....	5
Allan, Clarence .....	.....	.....	.....	.....	.....	.....	.....
Altitude Fuel Co.	8,048	19	.....	154	2	.....	.....
American Independent Coal Co.	8,093	17	.....	12,073	19	.....	3
American Smelting & Refining Co.	84,889	107	.....	11,609	25	.....	.....
Amos Coal Co.	263	1	.....	82,804	126	.....	12
Anchor Leasing Co.	878	3	.....	220	1	.....	.....
Anderson, Stuart	416	2	.....	542	2	.....	.....
Antonita & Bellino	207	1	.....	190	2	.....	.....
Arrow Coal Co.	2,445	7	.....	4,144	9	.....	5
Arrowhead Coal Co.	99	1	.....	100	1	.....	.....
Audin, Clement	2,218	3	.....	3,170	3	.....	.....
Ayrshire Coal Co.	515	2	.....	206	2	.....	.....
Aztec Coal Mining Co.	10,216	35	.....	11,179	35	.....	2
Babej, Nick .....	.....	.....	.....	500	1	.....	.....
Babey, Michael	133	1	.....	.....	.....	.....	.....
Babson Coal Co.	1,127	3	.....	1,056	2	.....	.....
Bachy Coal Co.	223	2	.....	250	1	.....	.....
Bald Coal Co.	4,771	13	.....	4,535	13	.....	1
Baldwin Fuel Co.	400	2	.....	850	2	.....	.....
Baldy Coal Co.	1,130	2	.....	511	3	.....	.....
Ballen & Combs .....	.....	.....	.....	676	4	.....	.....

Banner Coal Co.	3,381	11	.....	3	904	14	.....	6
Barbour Coal Co.	53,263	80	.....	11	38,483	100	.....	.....
Barker, Wright	2,693	2	.....	.....	2,196	2	.....	.....
Barnell, Geo. M.	1,902	5	.....	1	1,910	4	.....	.....
Bartello & Berte Coal Co.	140	2	.....	.....	.....	.....	.....	.....
Bassick Coal Co.	156	3	.....	.....	.....	.....	.....	.....
Bachelor, Chas.	331	1	.....	.....	366	2	.....	.....
Baudino & Co.	1,831	6	.....	.....	1,540	3	.....	.....
Bear Canon Coal Co.	8,835	32	.....	1	14,358	40	.....	3
Bear River Coal Co.	31,843	61	.....	13	42,276	52	.....	10
Bear, Tony	4,976	6	.....	.....	7,110	11	.....	.....
Beaudette Coal Co.	68	3	.....	.....	.....	.....	.....	.....
Beaver Valley Coal Co.	.....	.....	.....	.....	200	4	.....	.....
Bedlien, George	.....	.....	.....	.....	451	2	.....	.....
Bellodi, Angelo	186	1	.....	.....	.....	.....	.....	.....
Bellodi, Vasco	.....	.....	.....	.....	242	1	.....	.....
Bennett Coal Co.	865	2	.....	.....	390	1	.....	.....
Benster, L. D.	75	4	.....	.....	111	2	.....	.....
Bierce, Jas. A.	648	2	.....	.....	390	2	.....	.....
Big Five Coal Co.	1,149	3	.....	.....	.....	.....	.....	.....
Big Tree Coal Co.	85	2	.....	.....	.....	.....	.....	.....
Black Cat Coal Co.	97	2	.....	.....	909	2	.....	.....
Black Diamond Coal Co. (Delta)	614	4	.....	.....	1,100	2	.....	.....
Black Diamond Coal Co. (La Plata)	1,508	3	.....	.....	1,068	3	.....	.....
Black Diamond Fuel Co.	54,005	67	.....	14	48,378	58	.....	10
Black, Earnest	.....	.....	.....	.....	637	10	.....	.....
Black Hawk Coal Co.	4,516	9	.....	4	2,418	9	.....	2
Black King Coal Co.	.....	.....	.....	.....	750	5	.....	.....
Blair Coal Co.	475	2	.....	.....	240	1	.....	.....
Blue Flame Coal Co.	1,500	2	.....	.....	.....	.....	.....	.....
Blue Ribbon Coal Co.	311	4	.....	.....	7,807	28	.....	.....
Bluff Springs Leasing Co.	2,257	10	.....	2	.....	.....	.....	.....
Boagilo Coal Co.	600	3	.....	.....	1,440	7	.....	.....
Bohlender Coal Co.	.....	.....	.....	.....	600	4	.....	.....
Boulder Canon Coal Co.	.....	.....	.....	.....	.....	.....	.....	.....
Boulder Valley Coal Co.	165,609	101	1	25	161,148	96	.....	18
Bowman, Guilermo	326	2	.....	.....	641	2	.....	.....
Brewster Mining Co.	421	2	.....	.....	18	1	.....	.....
Brook Canon Coal Co.	.....	.....	.....	.....	2,165	6	.....	.....
Brookside Coal Co.	.....	.....	.....	.....	3,993	11	.....	.....
Brown, George	746	3	.....	.....	1,412	2	.....	.....
Buckeye Coal Co.	.....	.....	.....	.....	89	3	.....	.....

TABLE A—1933-1934—Continued

COMPANIES	Total Production, 1933	No. of Men Employed, 1933	Number of Fatal Acci- dents, 1933	No. of Non- Fatal Acci- dents, 1933	Total Production, 1934	No. of Men Employed, 1934	Number of Fatal Acci- dents, 1934	No. of Non- Fatal Acci- dents, 1934
Buddy Coal Co.	3,767	8			1,814	2		
Bueno Coal Co.	365	1			180	2		1
Busy Bee Coal Co.	927	10			4,331	6		
Cactus Coal Co.	996	2			1,140	2		
Caddell Coal Co.	1,017	6			978	9		
Caldirola Coal Co.	15,788	27			17,237	18		
Caliente Coal Co.	38,895	109			43,537	124		8
Calumet Fuel Co.	152,071	257			210,449	196		4
Canon Black Diamond Coal Co.	9,848	28			23,630	27		2
Canon City Superior Coal Co.	270	10						
Canon Ideal Coal Co.					2,919	2		
Canon Imperial Coal Co.	1,682	7			499	6		
Canon Liberty Coal Co.	1,193	5			1,801	5		
Canon Monarch Coal Co.	20,249	40			20,079	27		17
Canon Quality Coal Co.	7,472	22			1,760	22		1
Canon Reliance Coal Co.	42,269	100			9,892	107		2
Caprock Coal Co.					818	17		3
Carbon Creek Coal Co.	726	2						
Carestia, Paul	450	1			200	1		
Castle Coal Mining Corp.	7,392	11			5,721	7		3
Castle Rock Coal Co.	1,236	2			559	2		
Castleman, Walter	486	4						
Chay, Louis	100	1						
Chergo, Tom	130	1			250	1		
Chilcovi, John	*		1					
Church & Schlegel	123	2						
Christy Coal Co.					873	5		
Clarke Coal Co.	2,135	4			2,452	3		
Clarkson & Clausen	322	3						

Clayton Coal Co.	206,337	262	42	217,079	273	1	40
Cline, Donald M.	418	1	.....	297	3	.....	.....
Close, Frank	549	2	.....	152	1	.....	.....
Coal Gulch Coal Co.	54	1	.....	37	1	.....	.....
Colona Coal Co.	.....	.....	.....	.....	.....	.....	.....
Colorado Fuel & Iron Co.	760,006	1,140	1	797,944	1,083	1	118
Colorado Pinnacle Coal Co.	74	2	.....	.....	.....	.....	.....
Colorado Springs Co.	38,856	60	6	34,765	63	.....	10
Colorado & Utah Coal Co.	117,825	129	32	102,173	148	.....	42
Community Coal Co.	.....	.....	.....	389	1	.....	.....
Consolidated Coal & Coke Co.	99,451	112	4	84,622	106	.....	9
Converse Coal Co.	509	1	.....	.....	.....	.....	.....
Cook, O. C.	181	2	.....	.....	.....	.....	.....
Corley Coal Co.	25,556	37	13	14,386	32	.....	6
Cortez Coal Co.	.....	.....	.....	484	2	.....	.....
Coryell, Frank	.....	.....	.....	8,382	8	.....	.....
Cox, T. L.	218	1	.....	190	1	.....	.....
Cragger, W. M.	279	3	.....	.....	.....	.....	.....
Crested Butte Coal Co.	30,093	28	3	29,998	34	.....	6
Cribbs, E. B.	.....	.....	.....	13,163	62	.....	7
Cribbs, J. D.	22,661	44	11	.....	.....	.....	.....
Cuckoo Coal Co.	150	2	.....	.....	.....	.....	.....
Daisy Coal Co.	1,524	3	.....	1,843	3	.....	.....
Danville Coal Co.	1,382	4	.....	2,289	3	.....	.....
De Boy, Frank	614	1	.....	351	1	.....	.....
Deldosso Coal Co.	12,901	27	3	9,497	24	.....	3
Deertrail Coal Co.	180	2	.....	.....	.....	.....	.....
Denny Coal Co.	380	4	.....	213	2	.....	.....
Diamond Coal Co.	399	2	.....	.....	.....	.....	.....
Dick Coal Co.	15,238	24	1	16,697	26	.....	1
Diehl, Peter	10,539	60	5	.....	.....	.....	.....
Di Giacomo Coal Co.	100	3	.....	.....	.....	.....	.....
Domestic Coal Co.	8,184	14	5	9,367	14	.....	3
Double Dick Coal Co.	6,992	45	4	19,949	26	.....	10
Drennan Coal Co.	603	2	.....	673	2	.....	.....
Dufur, Xavier	446	1	.....	159	1	.....	.....
Durango Coal Co.	1,038	4	.....	1,421	4	.....	.....
Eagle Coal Co.	.....	.....	.....	3,083	4	.....	.....

*No production.

TABLE A—1933-1934—Continued

COMPANIES	Total Production, 1933	No. of Men Employed, 1933	Number of Fatal Acci- dents, 1933	No. of Non- Fatal Acci- dents, 1933	Total Production, 1934	No. of Men Employed, 1934	Number of Fatal Acci- dents, 1934	No. of Non- Fatal Acci- dents, 1934
Elders Coal Co.	348	2	.....	.....	332	2	.....	.....
Eldorado Coal Co.	5,888	8	.....	.....	7,340	10	.....	1
Electric Coal Co.	1,940	3	.....	.....	1,502	3	.....	.....
Elledge, Frank	186	2	.....	.....	209	2	.....	.....
Empire Coal Mining Co.	21,171	51	.....	2	27,896	54	.....	1
Estes Bros.	195	2	.....	.....	733	2	.....	.....
Estes, Ora	.....	.....	.....	.....	334	2	.....	.....
Fairfield, C. F.	141	1	.....	.....	.....	.....	.....	.....
Farmers Mutual Coal Co.	1,587	4	.....	.....	809	.....	.....	.....
Fawn Hollow Coal Co.	2,807	7	.....	1	4,090	12	.....	1
Fishers Peak Coal Co.	242	1	.....	.....	.....	.....	.....	.....
Florence Coal Co.	1,385	4	.....	.....	1,309	3	.....	.....
Fondis Coal Co.	237	1	.....	.....	270	1	.....	.....
Foreman, Thos. D.	799	1	.....	.....	562	1	.....	.....
Foster Bros.	150	1	.....	.....	.....	.....	.....	.....
Fredrizzi, Dan	.....	.....	.....	.....	191	2	.....	.....
Fremont Canon Coal Co.	.....	.....	.....	.....	2,619	18	.....	3
Frisco Coal Co.	2,289	5	.....	.....	2,014	5	.....	.....
Frodsham, Vincent	.....	.....	.....	.....	959	2	.....	.....
Fruth & Micheletti	390	2	.....	.....	673	2	.....	.....
Gallegos, Gerlo	.....	.....	.....	.....	250	2	.....	.....
Garcia, Benito	300	1	.....	.....	150	1	.....	.....
Garfield Coal Co.	4,772	8	.....	1	3,204	9	.....	.....
Garvey Coal Co.	.....	.....	.....	.....	640	2	.....	.....
Gearhart, Ballard	7,849	8	.....	.....	6,646	8	.....	1
Gelwick Coal Co.	527	2	.....	.....	81	1	.....	.....
Gem Coal Co.	2,314	6	.....	.....	1,635	4	.....	1
George, Sam & Sons	1,425	7	.....	.....	837	4	.....	.....
Gilson Asphaltum Co.	6,923	8	.....	.....	6,670	10	.....	1

Giordino Coal Co.	785	2	.....	.....	1,306	5	.....	1
Giuliano & Carpine	22,618	57	.....	.....	22,433	28	.....	2
Gorbella, Dominick	816	2	.....	.....	1,310	2	.....	.....
Gordon Coal Co.	36,263	54	.....	.....	43,266	68	.....	4
Grasso, Nuncio	294	2	.....	.....	.....	.....	.....	.....
Gray, L. J.	167	1	.....	.....	310	1	.....	.....
Green, Thomas	435	1	.....	.....	141	1	.....	.....
Green Valley Coal Co.	4,937	5	.....	.....	3,764	5	.....	.....
Greenwood, Geo. A.	42	1	.....	.....	.....	.....	.....	.....
Griffiths Coal Co.	8,361	14	.....	.....	5,868	11	.....	2
Hackman Coal Co.	2,278	4	.....	.....	2,037	3	.....	1
Hardman & Sons	528	1	.....	.....	420	2	.....	.....
Harrington, A. L.	121	1	.....	.....	.....	.....	.....	.....
Harris, Jas. and Associates	.....	.....	.....	.....	11,178	16	.....	2
Hart, G. G. & Son	788	3	.....	.....	602	1	.....	.....
Hayden Coal Co.	69,894	104	.....	.....	90,603	121	.....	13
Hayden Valley Mutual Coal Co.	1,308	2	.....	.....	941	2	.....	.....
Henderson, J. B.	.....	.....	.....	.....	112	3	.....	.....
Hernandez, J. D.	152	2	.....	.....	.....	.....	.....	.....
Hiatt, W. A.	922	2	.....	.....	.....	.....	.....	.....
Hi-Carbon Coal Co.	.....	.....	.....	.....	4,852	13	.....	.....
Hice Coal Co.	527	2	.....	.....	395	2	.....	.....
Hidden Treasure Coal Co.	2,121	5	.....	.....	1,007	2	.....	.....
High View Coal Co.	4,462	6	.....	.....	6,731	8	.....	1
Holder, W. L.	156	1	.....	.....	100	1	.....	.....
Hollingsworth, John	.....	.....	.....	.....	144	2	.....	.....
Home Fuel & Supply Co.	2,616	5	.....	.....	2,855	4	.....	.....
Hopper, A. F.	150	2	.....	.....	3,947	15	.....	.....
Horace Anthracite Co.	.....	.....	.....	.....	154	1	.....	.....
Horton Coal Co.	196	1	.....	.....	.....	.....	.....	.....
Huerfano Coal Co.	50,047	142	.....	.....	46,182	122	.....	9
Hughes & McCann	1,674	3	.....	.....	.....	.....	.....	.....
Hunt, W. M.	1,017	2	.....	.....	263	2	.....	.....
Hunter, J. B.	887	2	.....	.....	.....	.....	.....	.....
Hunziker & Mann	847	3	.....	.....	.....	.....	.....	.....
Ideal Coal Co.	380	2	.....	.....	299	2	.....	.....
Imperial Coal Co.	118,812	119	.....	.....	121,775	123	.....	23
Ince, Bud	60	1	.....	.....	.....	.....	.....	.....
Independent Coal Co.	1,397	3	.....	.....	966	3	.....	.....
James Bros.	450	2	.....	.....	880	2	.....	.....

TABLE A—1933-1934—Continued

COMPANIES	Total Production, 1933	No. of Men Employed, 1933	Number of Fatal Acci- dents, 1933	No. of Non- Fatal Acci- dents, 1933	Total Production, 1934	No. of Men Employed, 1934	Number of Fatal Acci- dents, 1934	No. of Non- Fatal Acci- dents, 1934
Jefferson Coal Co.....	2,294	11	.....	.....	8,173	9	.....	7
Jeffries Fuel Co.....	6,024	9	.....	2	2,898	12	.....	1
Jewell Collieries Corp.....	26,983	40	.....	7	19,776	50	.....	5
Jones Coal Co.....	148	2	.....	.....	342	2	.....	.....
Jones & Trachta.....	30	2	.....	.....	79	2	.....	.....
Jones, Walter L.....	612	2	.....	.....	373	2	.....	.....
Jordan, Guy.....	.....	.....	.....	.....	1,507	3	.....	.....
Juanita Coal & Coke Co.....	22,828	34	.....	3	21,705	35	.....	1
Kannah Creek Co-op. Coal Association.....	.....	.....	.....	.....	51	2	.....	.....
Kennedy, H. A.....	353	2	.....	.....	382	1	.....	.....
Kerr Coal Co.....	.....	.....	.....	.....	22,748	41	.....	.....
Keystone Coal Co.....	38,430	63	.....	9	33,358	62	.....	6
Kling & Mitchell.....	738	2	.....	.....	911	2	.....	.....
Knez, Joe.....	1,695	2	.....	.....	1,232	2	.....	.....
Kovak & Skoda.....	2,172	2	.....	.....	.....	.....	.....	.....
Ko-Z Coal Co.....	5,478	9	.....	.....	5,836	11	.....	1
Kurie Coal Co.....	921	6	.....	.....	263	1	.....	.....
Kurtz, Oren.....	.....	.....	.....	.....	.....	.....	.....	.....
Lamm, Calude.....	76	2	.....	.....	2,201	4	.....	2
La Salle Coal Co.....	.....	.....	.....	.....	.....	.....	.....	.....
Leader Coal Co.....	1,399	5	.....	.....	1,877	4	.....	.....
Le Donne, James.....	1,108	3	.....	.....	185	1	.....	.....
Leonard, M. F.....	103	1	.....	.....	117,783	113	2	22
Leyden Lignite Co.....	121,260	98	.....	28	999	2	.....	1
Liberty Coal Co.....	1,243	3	.....	.....	42,259	42	.....	8
Liley Coal & Land Co.....	48,327	43	.....	3	308	6	.....	.....
Lilyard Coal Co.....	350	2	.....	.....	421	2	.....	.....
Lippis, John.....	.....	.....	.....	.....	.....	.....	.....	.....
Little Pinnacle Coal Co.....	860	2	.....	.....	.....	.....	.....	.....

Littleton Valley Coal Co.	7,067	22	3	12	2,871	30	5
Llewellyn Coal Co.	672	2			929	3	
Lloyd & Chappella.	79	2					
Lone Pine Coal Co.					1,209	3	
Louisville-Lafayette Coal Co.	84,889	114	1	25	79,851	115	22
Lowe Coal Co.	1,640	5			1,208	5	
Lucia, B. C.	47				176	2	
McBroom, Chas.	8,473	1			37	1	
McDonald, W. G.	160	12		4	13,090	11	1
McFarlin, Joe.		1					
McGinley, Wm.	1,699	2			1,659	2	1
McNatt, J. Q.	3,124	6		1	674	3	1
McNeil Coal Corp.	128,407	169	1	22	89,662	91	14
McPherson, Guy M.	113	4			438	3	
Major Coal Co.	3,177	14		1	5,935	9	5
Mancos Coal Co.	235	2			972	2	
Mancos Hill Coal Co.	1,309	4	1		1,950	6	
Marinelli Bros.	348	2			138	2	
Marriott, Wm.	150	1	1		162	1	
Marsh, Walter.					435	1	
Martin Coal Co.					2,519	4	
Martinez, Ralph.	283	2			190	1	
Martorano & Son.	342	2			433	2	
Mascot Coal, Oil & Clay Co.	1,088	2		1	508	2	
Mattivi, Steve, & Sons.	1,600	7		1	1,639	12	
Mesa County Coal Co.	294				633	3	
Micheli, Pio.	12,056	27		9	13,471	23	2
Midnight Coal Co.					471	3	
Midwest Red Glow Coal Co.	1,531	5		1	1,778	5	
Minnequa Fuel Co.	17,612	28			8,090	29	1
Moffat Coal Co.	93,387	167	1	28	97,984	182	10
Monroe Coal Co.	10,211	15		1	12,324	20	3
Morgan, Wm.	120	6					
Morris, Geo. W.	775	2			557	2	
Moschetti, Tony	361	7					
Mt. Carbon Coal Co.					3,369	10	2
Mt. Lincoln Coal Co.	90	3			150	2	
Mundell, J. W.	780	3			1,041	2	
Murrell, Jas.	667	3			551	2	

TABLE A—1933-1934—Continued

COMPANIES	Total Production, 1933	No. of Men Employed, 1933	Number of Fatal Acci- dents, 1933	No. of Non- Fatal Acci- dents, 1933	Total Production, 1934	No. of Men Employed, 1934	Number of Fatal Acci- dents, 1934	No. of Non- Fatal Acci- dents, 1934
National Fuel Co.	253,111	279	.....	40	176,927	293	3	29
Neish, W. K.	.....	.....	.....	.....	5,741	5	.....	.....
Niggerhead Mining Co.	6,613	21	.....	.....	6,223	33	.....	.....
Northern Coal Co.	.....	.....	.....	.....	721	3	.....	.....
North Park Coal Co.	26,105	26	1	3	22,748	33	.....	6
Nossaman, W. J.	164	1	.....	.....	250	2	.....	.....
Oberding, Wm. J.	208	1	.....	.....	200	1	.....	.....
Ohio Creek Coal Co.	1,163	4	.....	.....	1,209	3	.....	.....
O. K. Coal Co.	3,208	10	.....	3	2,467	8	.....	1
Oliver Coal Co.	49,528	54	.....	4	50,837	55	.....	6
Orecchio Coal Co.	5,756	13	.....	2	.....	.....	.....	.....
Overcamp, Walter	354	3	.....	.....	.....	.....	.....	.....
Owen, W. H.	608	2	.....	.....	685	2	.....	.....
Painton, F. D.	776	2	.....	.....	.....	.....	.....	.....
Pallsade Coal Co.	4,707	10	.....	2	5,090	16	.....	2
Paonia Farmers Coal Co.	1,667	2	.....	.....	2,179	2	.....	.....
Paramount Coal Co.	517	4	.....	.....	1,839	4	.....	.....
Pattison Coal & Oil Co.	697	1	.....	.....	.....	.....	.....	.....
Peachey Coal Co.	17,504	46	.....	2	14,431	37	.....	2
Peacock Coal Co.	801	3	.....	.....	598	2	.....	.....
Peerless Coal Co. (Boulder)	5,907	7	.....	6	.....	.....	.....	.....
Peerless Coal Co. (La Plata)	834	2	.....	.....	731	2	.....	2
Perino Coal Co.	1,200	6	.....	.....	2,098	4	.....	2
Petry, Sam.	3,055	6	.....	.....	1,850	6	.....	.....
Phelan & Shaver	635	2	.....	.....	1,209	2	.....	.....
Phoenix Fuel Co.	6,613	43	.....	2	4,076	44	.....	.....
Pickett, L. W.	825	2	.....	.....	.....	.....	.....	.....
Pikes Peak Fuel Co.	206,710	161	1	27	208,677	162	2	30

Pine River Coal Co.	136	1	240	1	240	1
Pinnacle-Kemmerer Fuel Co.	18,485	38	2,825	6	2,825	35
Pittsburgh Coal Co.	1,161	3	1,350	1	1,350	4
Placita Mine Leasing Co.	3,503	8	1,093	2	1,093	2
Pluto Coal Co.			13,006	1	13,006	15
Pollard, C. F.	1,981	2	1,813		1,813	2
Pollo, John, Jr.	372	2	306		306	1
Premier Coal Co.			1,250		1,250	4
Pritchard, F. J.	373	2	231		231	2
Prosperity Coal Co.						
P. & T. Coal Co.	1,055	3	505		505	3
Pryor Coal Mining Co.	27,457	78	26,221	5	26,221	71
Rainbow Coal Co.			250		250	3
Ranson Coal Co.	1,093	3	1,906		1,906	4
Rasmussen, H. J.	650	1	1,251		1,251	1
Rauman Coal Co.	860	3	588		588	2
Ream, W. A., Coal Co.	10,826	27	2,751	4	2,751	46
Red Arrow Coal Co.			2,609		2,609	16
Red Ash Coal Co.	3,112	4	8,570		8,570	14
Red Canon Coal Co.	3,169	4	2,966		2,966	4
Reinart, R. C.	1,007	2	878		878	2
Rice, Arthur	212	1	233		233	1
Richards, C. H.	114	1				
Richardson Coal Co.	1,894	4				
Riffe Coal Mines, Inc.	878	2				
Riggio, Nick	632	2				
Riggs, E. G.	2,138	5	1,104	2	1,104	3
Riverside Coal Co.	1,692	6	1,501	1	1,501	5
Riverview Coal Co.			1,955	1	1,955	3
Rocchio Coal Co.	5,974	11	8,346		8,346	13
Rock Creek Coal Co.			421		421	1
Rockdale Canon Coal Co.			248		248	4
Rocky Mountain Fuel Co.	569,207	698	505,718	131	505,718	644
Roggero, Joe.	458	2	871		871	1
Rolfes, Geo. T.	6,907	7	4,758		4,758	6
Rollins Fuel Co.	427	1	402		402	1
Ross Coal Co.	3,869	6	3,524	1	3,524	8
Routt County Mining Co.	2,226	12	4,194		4,194	7
Royal Gorge Coal Co.	1,046	11	7,363		7,363	18
Russell, W. E., Coal Co.	96,033	74	103,702	14	103,702	78

TABLE A—1933-1934—Continued

COMPANIES	Total Production, 1933	No. of Men Employed, 1933	Number of Fatal Acci- dents, 1933	No. of Non- Fatal Acci- dents, 1933	Total Production, 1934	No. of Men Employed, 1934	Number of Fatal Acci- dents, 1934	No. of Non- Fatal Acci- dents, 1934
Sadvar, Mathew.....	100	1	.....	.....	.....	.....	.....	.....
Salvador Coal Co.....	89	2	.....	.....	.....	.....	.....	.....
Sanchez, Demetro.....	50	1	.....	.....	720	2	.....	.....
Santa Fe Coal Co.....	985	4	.....	.....	1,041	4	.....	.....
Sarcillo Coal Co.....	42	2	.....	.....	.....	.....	.....	.....
Shamrock Coal Co. (Huerfano).....	73,754	87	1	12	650	2	.....	.....
Shamrock Coal Co. (Weld).....	.....	.....	.....	.....	78,086	84	.....	7
Shea, D. F.....	45	1	.....	.....	1,316	3	.....	.....
Shelton, H. D.....	.....	.....	.....	.....	30	1	.....	.....
Slagle, E. G.....	.....	.....	.....	.....	377	2	.....	.....
Slama, John.....	23	3	.....	.....	.....	.....	.....	.....
Sloan, J. D.....	172	2	.....	.....	.....	.....	.....	.....
South Canon Mine Leasing Co.....	2,441	14	.....	1	1,436	10	.....	.....
Sowers Coal Co.....	1,104	8	.....	.....	880	2	.....	.....
Spencer, Geo. S.....	762	2	.....	.....	521	1	.....	.....
Spring Canon Coal Co.....	.....	.....	.....	.....	1,139	3	.....	4
Stakish, Geo.....	152	1	.....	.....	57	1	.....	.....
Standard Coal Co.....	3,048	7	.....	.....	100	1	.....	.....
States Hall Coal Co.....	47	2	.....	1	1,803	5	.....	.....
Steel, Geo., & Co.....	.....	.....	.....	.....	739	3	.....	.....
Stokes, W. D.....	1,770	4	.....	.....	938	3	.....	.....
Stove Canon Coal Co.....	2,836	4	.....	.....	1,625	3	.....	.....
Strawberry Coal Co.....	800	3	.....	.....	105	5	.....	.....
Stretnan, J.....	.....	.....	.....	.....	3,701	9	.....	.....
Sunrise Coal Co.....	900	4	.....	.....	659	2	.....	.....
Sunshine Coal Co.....	2,421	3	.....	.....	2,033	2	.....	.....
Superior Fuel Co.....	946	3	.....	.....	1,007	2	.....	.....
Sviglio, J. F.....	892	3	.....	.....	.....	.....	.....	.....
Temple Fuel Co.....	67,206	135	.....	19	64,326	109	1	11
Thomas Coal Co.....	1,182	4	.....	.....	1,661	4	.....	.....

Thomas Mining Co.	16,711	24	.....	5	11,929	22	.....	2
Thor Fuel Co.	6,810	36	.....	.....	5,592	16	.....	.....
Tipotsch, Frank	382	1	.....	.....	534	2	.....	.....
Torrid Coal Co.	4,474	7	.....	5	7,144	13	.....	7
Triangle Coal Co.	1,636	2	.....	1	763	1	.....	.....
Trinidad Coal Co.	162	2	.....	.....	.....	.....	.....	.....
Trinidad Supply Coal Co.	245	2	.....	.....	493	2	.....	.....
Tri-State Coal Association	255	4	.....	1	773	4	.....	.....
Trujillo, L.	261	.....	.....	.....	250	3	.....	.....
Tucker, A. D.	.....	2	.....	.....	.....	.....	.....	.....
Ulice Coal Association	153	2	.....	.....	.....	.....	.....	.....
Unity Coal Co.	11,135	23	.....	9	.....	.....	.....	.....
Valley Coal Co.	281	2	.....	.....	1,100	2	.....	.....
Valley View Coal Co.	377	2	.....	.....	2,372	4	.....	.....
Van Winkle Coal Co.	932	11	.....	.....	.....	.....	.....	.....
Vickers Coal Co.	58,007	87	1	25	41,740	89	1	6
Victor-American Fuel Co.	346,051	740	1	106	330,878	746	1	136
Visage, A. F.	.....	.....	.....	.....	114	2	.....	.....
Vowell, T.	150	2	.....	.....	40	1	.....	.....
Waugh, Wm.	.....	.....	.....	.....	786	2	.....	.....
Webber, J. E.	206	2	.....	.....	152	1	.....	.....
Weberkirch, Kaspar	25	1	.....	.....	.....	.....	.....	.....
West, Eugene, Coal Co.	226	2	.....	.....	689	2	.....	.....
Western Star Coal Co.	1,463	2	.....	.....	276	1	.....	.....
White Ash Coal Co.	1,879	4	.....	.....	1,213	3	.....	.....
White Rose Coal Co.	300	2	.....	.....	.....	.....	.....	.....
Whitlock, E. E.	93	1	.....	.....	366	1	.....	.....
Whit, Wade	.....	.....	.....	.....	4,467	7	.....	3
Wild Cat Leasing Co.	.....	.....	.....	.....	791	2	.....	.....
Willden Coal Co.	922	2	.....	.....	.....	.....	.....	.....
Williams Coal Co.	1,420	3	.....	.....	1,067	3	.....	.....
Wilton, W. G.	.....	.....	.....	.....	203	2	.....	.....
Winton Coal Co.	3,583	3	.....	.....	2,543	3	.....	.....
Wisconsin Coal Co.	216	1	.....	.....	81	1	.....	.....
Woods & Black	155	3	.....	.....	.....	.....	.....	.....
Worthington, Joe	.....	.....	.....	.....	400	1	.....	.....
Yingling, Chas.	381	1	.....	.....	552	1	.....	.....
Ziesenis, Henry	899	2	.....	.....	958	2	.....	.....
Zimmerman, E. H.	.....	.....	.....	.....	1,351	2	.....	.....
Totals	5,284,872	8,179	20	1,042	5,251,003	8,138	21	963

TABLE B.
NUMBER INJURED IN COAL MINES DURING THE CALENDAR YEARS ENDING DECEMBER 31, 1931-1934

CAUSES		Permanent Total Disability		Permanent Partial Disability		TEMPORARY DISABILITY								Total Injuries			
						Time Lost More Than 14 Days				Time Lost Less Than 14 Days							
						1931	1932	1933	1934	1931	1932	1933	1934				
Underground:														1931	1932	1933	1934
1.	Falls of roof (coal, rock, etc.)	...	...	...	...	165	127	130	120	72	59	43	38	237	188	174	159
2.	Falls of face or pillar coal	...	...	...	...	99	70	54	94	40	58	47	33	139	129	101	127
3.	Mine cars and locomotives	...	...	...	...	162	130	150	139	70	84	60	44	233	215	213	186
4.	Gas explosions and burning gas	...	...	...	...	3	3	1	1	1	1	1	1	1	5	2	...
5.	Coal-dust explosions (including gas and dust combined)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6.	Explosives	...	...	...	...	1	6	2	3	2	...	...	...	...	6	3	3
7.	Suffocation from mine gas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
8.	Electricity	...	...	...	...	15	9	4	3	2	3	1	2	...	5	1	5
9.	Animals	...	...	...	...	65	46	54	45	28	27	16	19	33	27	26	24
10.	Mining machines	...	...	...	...	2	183	160	170	184	170	189	118	382	354	352	290
11.	Mines fires (burned, suffocated, etc.)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12.	Other causes	1	...	...	...	2	195	183	160	170	184	170	189	382	354	352	290
In Shaft:														1931	1932	1933	1934
13.	Falling down shafts or slopes	...	...	...	...	...	2	...	...	...	...	2	...	...	2	...	...
14.	Objects falling down shafts or slopes	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...
15.	Cages or skips	...	...	...	...	1	5	1	1	...	...	...	...	...	1	1	1
16.	Other causes	...	...	...	...	1	2	1	1	...	...	...	...	...	2	1	1
1	Total number injured in mine	...	...	...	...	708	586	573	589	418	422	371	266	1,136	1,015	955	861
On Surface:														1931	1932	1933	1934
17.	Mine cars and mine locomotives	...	...	...	...	6	7	6	12	6	2	7	6	13	10	13	18
18.	Electricity	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19.	Machinery	...	...	...	...	13	16	17	20	8	8	9	3	22	24	26	23
20.	Boiler explosions or bursting steam pipes	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...
21.	Railway cars and locomotives	...	...	...	...	26	16	21	36	30	14	25	19	58	30	46	55
22.	Other causes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	Total number injured on the surface	...	...	...	...	49	41	44	71	49	26	43	30	102	68	87	101
1	Grand Total	...	...	...	...	757	627	617	660	467	448	414	296	1,238	1,083	1,042	962

A. PERMANENT TOTAL DISABILITY. Loss of both legs or arms, one leg and one arm, total loss of eyesight, paralysis or other condition permanently incapacitating workman from doing any work of a gainful occupation.

B. PERMANENT PARTIAL DISABILITY. Loss of one foot, leg, hand, eye, one or more fingers, one or more toes, and dislocation where ligaments are severed, or any other injury known in surgery to be permanent partial disability.

C. In this column include only accidents which cause a loss of time more than the balance of the day or shift upon which the accident occurred.

TABLE C.
MINE FATALITIES BY CAUSES, 1931-1934

CAUSES	Years			
	1931	1932	1933	1934
Underground:				
1. Falls of roof (coal, rock, etc.).....	4	8	7	8
2. Falls of face or pillar coal.....	5	4	3	5
3. Mine cars and locomotives.....	9	9	3	2
4. Gas explosions and burning gas.....	....	1	....	....
5. Coal-dust explosions (including gas and dust combined)	1	....	....	....
6. Explosives .....	....	1	....	....
7. Suffocation from mine gases.....	....	2	2	1
8. Electricity (shock or burns).....	....	1	2	3
9. Animals .....	....	1	....	....
10. Mining machines .....	....	....	....	....
11. Mine fires (burned, suffocated, etc.).....	....	....	....	....
12. Other causes .....	....	....	....	1
Shaft:				
13. Falling down shafts or slopes.....	....	1	....	....
14. Objects falling down shafts or slopes.....	....	....	....	....
15. Cages or skips.....	....	....	....	....
16. Other causes .....	....	....	....	....
Total underground.....	19	28	17	20
Surface:				
17. Mine cars and mine locomotives.....	....	....	....	....
18. Electricity (shock or burns).....	....	....	....	....
19. Machinery	2	....	1	1
20. Boiler explosions or bursting steam pipes.....	....	....	....	....
21. Railway cars and locomotives.....	....	....	....	....
22. Other causes .....	....	1	2	....
Total	2	1	3	1
Grand total	22	29	20	21

TABLE D—1931.

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1931 AND CAPACITY OF MINE PER DAY IN TONS.

ARCHULETA COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
Cox.....	T. L. Cox.....	Pagosa Springs.....	Bituminous.....	94	2	487	.....
Bellino.....	Bellino & Antonita.....	Pagosa Junction.....	Sub-bituminous.....	150	1	344	.....
McBroom.....	Chas. McBroom.....	Dyke.....	Bituminous.....	53	1	130	.....
Francis.....	Payan Bros.....	Arboles.....	Bituminous.....	65	1	79	.....
Montezuma Sun.....	Leon Archuleta.....	Pagosa Springs.....	Bituminous.....	20	2	35	.....
Fitzgerald.....	A. L. Harrington.....	Arboles.....	Bituminous.....	15	1	31	.....
Number	of Mines operated: 6			63.8	8	1,106	

BOULDER COUNTY

Industrial.....	Rocky Mountain Fuel Co.....	Superior.....	Sub-bituminous.....	167.2	165	119,020	800
Vulcan.....	Rocky Mountain Fuel Co.....	Lafayette.....	Sub-bituminous.....	237.3	72	59,188	250
Standard.....	Rocky Mountain Fuel Co.....	Lafayette.....	Sub-bituminous.....	148.3	41	38,941	250
Monarch No. 2.....	National Fuel Co.....	Broomfield.....	Sub-bituminous.....	289.9	114	113,695	675
Crown.....	David Allan.....	Gorham.....	Sub-bituminous.....	261	57	67,412	500
Hi-Way.....	Louisville-Lafayette Coal Co.....	Broomfield.....	Sub-bituminous.....	238.2	58	55,434	600
Black Diamond.....	Black Diamond Fuel Co.....	Boulder.....	Sub-bituminous.....	133	18	11,315	150
Black Diamond No. 2.....	Black Diamond Fuel Co.....	Lafayette.....	Sub-bituminous.....	122	27	9,837	300
Centennial.....	Centennial Coal Co.....	Louisville.....	Sub-bituminous.....	58	42	9,833	200
High View.....	High View Coal Co.....	Gorham.....	Sub-bituminous.....	228	7	5,564	240
Pluto.....	Domestic Fuel Co.....	Boulder.....	Sub-bituminous.....	129	4	3,874	50
Sunrise.....	Sunrise Coal Co.....	Gorham.....	Sub-bituminous.....	121	15	1,850	110

BOULDER COUNTY—Continued

Pittsburgh.....	Pittsburgh Coal Co.....	Gorham.....	Sub-bituminous.....	133	2	1,028	10
New Ross.....	New Ross Coal Co.....	Gorham.....	Sub-bituminous.....	117	4	868	10
Gorham No. 2.....	Eldorado Coal Co.....	Gorham.....	Sub-bituminous.....	56	4	592	20
Peerless.....	Gilmour Coal Co.....	Gorham.....	Sub-bituminous.....	45	15	297	15
Pine Cliff.....	Tom Gabriella.....	Gorham.....	Sub-bituminous.....	27	3	203	10
Fireside.....	KOZ Coal M. Co.....	Louisville.....	Sub-bituminous.....	30	6	182	6
Number	of Mines operated: 18.....			190.2	654	499,133	

DELTA COUNTY

King.....	Juanita Coal & Coke Co.....	Bowie.....	Bituminous.....	54	44	33,597	1,000
Green Valley.....	Green Valley Coal Co.....	Cedaredge.....	Semi-bituminous.....	289	6	6,344	.....
Red Canon.....	Red Canon Coal Co.....	Cedaredge.....	Semi-bituminous.....	260.9	5	5,134	50
Paonia.....	Paonia Farmers Coal Co.....	Paonia.....	Semi-bituminous.....	171	3	3,298	.....
Independent.....	Independent Coal Co.....	Cedaredge.....	Semi-bituminous.....	230	3	2,580	35
States.....	States-Hall Coal Co.....	Cedaredge.....	Semi-bituminous.....	203	3	2,014	50
Red Mountain.....	States-Hall Coal Co.....	Cedaredge.....	Semi-bituminous.....	240	4	1,717	40
Owens.....	R. Owens & Sons.....	Hotchkiss.....	Semi-bituminous.....	200	3	1,641	2
Winton.....	Winton Coal Co.....	Austin.....	Bituminous.....	120	3	896	15
Gelwick.....	Gelwick Coal Co.....	Hotchkiss.....	Bituminous.....	241	2	821	4
Burdick.....	Burdick Coal Co.....	Hotchkiss.....	Bituminous.....	200	3	545	12
Fitzsimmons.....	E. A. Fitzsimmons.....	Paonia.....	Semi-bituminous.....	83	2	499	2
Western Star.....	Western Star Mine Co.....	Cedaredge.....	Semi-bituminous.....	70	4	451	.....
Bennett.....	W. D. Bennett.....	Paonia.....	Semi-bituminous.....	110	2	280	.....
Leroux Creek.....	T. M. Vowell.....	Lazear.....	Semi-bituminous.....	90	2	200	5
Converse.....	Converse Coal Co.....	Paonia.....	Semi-bituminous.....	54	1	185	25
Number	of Mines operated: 16.....			123.6	90	60,202	

ELBERT COUNTY

Mascot.....	Mascot Coal, O. & C. P. Co.....	Matheson.....	Sub-bituminous.....	171	5	1,589	100
Wright.....	Wright Barker.....	Matheson.....	Sub-bituminous.....	180	2	1,547	50
Number	of Mines operated: 2.....			173.6	7	3,136	

TABLE D—1931—Continued.

EL PASO COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Pikeview.....	Pikes Peak Fuel Co.....	Pikeview.....	Sub-bituminous.....	227	168	241,655	2,000
City Coal Mines.....	Colorado Springs Co.....	Colorado Springs.....	Sub-bituminous.....	226	65	46,092	500
Corley.....	Corley Coal Co.....	Colorado Springs.....	Sub-bituminous.....	257	31	26,843	300
Kurle.....	Kurle Coal Co.....	Colorado Springs.....	Sub-bituminous.....	218	25	13,755	100
Jimmy Camp.....	Thomas Mining Co.....	Colorado Springs.....	Sub-bituminous.....	230.4	8	6,538	100
Franceville.....	Franceville Fuel Co.....	Colorado Springs.....	Sub-bituminous.....	159	15	5,283	100
Climax.....	Danville Coal Co.....	Colorado Springs.....	Sub-bituminous.....	220	4	3,506	.....
Drennan.....	Drennan Coal Co.....	Colorado Springs.....	Sub-bituminous.....	278	3	1,694	10
Golden Dawn.....	Golden Dawn Coal Co.....	Yoder.....	Sub-bituminous.....	248	2	612	5
Number	of Mines operated: 9			226.4	321	345,978	

FREMONT COUNTY

Chandler.....	Victor-American Fuel Co.....	Chandler.....	Bituminous.....	157	297	129,008	1,000
Rockvale No. 2.....	John D. Cribbs (Lessee).....	Rockvale.....	Bituminous.....	84	182	29,305	800
Rockvale No. 3.....	Colorado Fuel & Iron Co.....	Canon City.....	Bituminous.....	240.5	36	40,786	250
Canon (Wolf Park).....	Canon-Reliance Coal Co.....	Canon City.....	Bituminous.....	104	86	39,894	500
Double Dick.....	Double Dick Coal Co.....	Coal Creek.....	Bituminous.....	266	41	21,638	125
Bluff Springs No. 2.....	Bluff Springs Leasing Co.....	Florence.....	Bituminous.....	211	33	14,539	.....
Griffiths.....	Griffiths Coal Co.....	Canon City.....	Bituminous.....	269	16	13,973	90
Canon Imperial.....	Canon Imperial Coal Co.....	Florence.....	Bituminous.....	217	26	9,368	.....
South Magnet.....	Canon Quality Coal Co.....	Florence.....	Bituminous.....	225	27	9,242	100
Brookside.....	Orechio Coal M. Co.....	Florence.....	Bituminous.....	255.5	13	8,063	30
Cuckoo.....	Delisa Canon Coal Co.....	Rockvale.....	Bituminous.....	220	18	7,090	15
Rocchlo.....	Rocchlo Coal Co.....	Coal Creek.....	Bituminous.....	238	11	6,989	35

FREMONT COUNTY—Continued

New Fremont.....	Giuliano Coal Co.....	Coal Creek.....	Bituminous.....	217	23	5,697	20
Jack O' Lantern.....	Beer Coal Co.....	Florence.....	Bituminous.....	217	9	3,869	30
Newlan Creek.....	Newlan Creek Coal Co.....	Florence.....	Bituminous.....	241	8	2,340	10
Canon District.....	Lippis & Bosco.....	Canon City.....	Bituminous.....	74	5	1,250	20
Petry.....	Sam Petry.....	Florence.....	Bituminous.....	75	3	870	.....
Caldirola.....	Caldirola Coal Co.....	Florence.....	Bituminous.....	40	9	794	32
Superior.....	H. J. Smith.....	Florence.....	Bituminous.....	180.5	2	733	.....
Willie No. 1.....	Willie Coal Co.....	Florence.....	Bituminous.....	146	1	584	.....
Willie No. 2.....	James Brothers.....	Florence.....	Bituminous.....	140	2	600	5
North Magnet.....	Perino Coal Co.....	Florence.....	Bituminous.....	40	4	449	10
Brewster.....	Allan Beach & Associates.....	Florence.....	Bituminous.....	55	2	275	.....
Number	of Mines operated : 23.....			157.1	854	347,356	

GARFIELD COUNTY

South Canon.....	South Canon M. Leas, Co.....	Glenwood Springs.....	Bituminous.....	252	11	13,002	75
Carbonera.....	Gilson Asphaltum Co.....	Carbonera via Mack.....	Bituminous.....	166	9	7,452	60
Estes.....	Estes Coal Co.....	Rifle.....	Bituminous.....	247	2	1,864	.....
Ziesenis.....	Henry Ziesenis.....	Rifle.....	Bituminous.....	161	2	1,682	30
Rauman.....	Rauman Coal Co.....	Rifle.....	Bituminous.....	242	2	1,587	25
North Canon.....	Rifle Coal Mines, Inc.....	Rifle.....	Bituminous.....	184	2	1,413	20
Silt.....	Morgan Coal Co.....	Rifle.....	Bituminous.....	185.5	3	1,242	10
Ohkrant.....	Frank De Boy.....	Rifle.....	Bituminous.....	165	2	853	.....
Harvey Gap.....	James La Donne.....	Rifle.....	Bituminous.....	260	3	500	6
McLearn.....	Crumpley & Sons.....	Rifle.....	Bituminous.....	62	2	339	10
Paradise.....	Angelo Bellodi.....	Rifle.....	Bituminous.....	107	1	260	.....
Earnest.....	Kenneth Gardner.....	Carbondale.....	Bituminous.....	60	3	208	10
Prospect.....	R. Knapp.....	Glenwood Springs.....	Bituminous.....	45	2	45	.....
	of Mines operated : 13.....			180	44	30,447	

TABLE D—1931—Continued.
GUNNISON COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Somerset.....	Calumet Fuel Co.....	Somerset.....	Bituminous.....	185	109	153,924	1,200
Crested Butte	Colorado Fuel & Iron Co.....	Crested Butte.....	Bituminous.....	110.7	133	127,035	1,400
Oliver.....	Oliver Coal Co.....	Somerset.....	Semi-anthracite.....	145	45	36,232	500
Alpine.....	Rocky Mountain Fuel Co.....	Baldwin.....	Semi-bituminous.....	94	54	28,299	350
Bulkeley No. 2.....	Crested Butte Coal Co.....	Crested Butte.....	Bituminous.....	93	55	26,785	500
Horace.....	Horace Anthracite Co.....	Crested Butte.....	Anthracite.....	110.3	67	24,761	300
Ohio Creek.....	Ohio Creek Coal Co.....	Gunnison.....	Bituminous.....	131	7	4,162	50
Richardson.....	Richardson Coal Co.....	Gunnison.....	Semi-anthracite.....	267	2	907	.....
Carbon Creek.....	Carbon Creek Coal Co.....	Gunnison.....	Bituminous.....	250	1	598	3
Hawk's Nest.....	Blunt & Andin.....	Somerset.....	Bituminous.....	67	2	542	.....
Castle Rock.....	Castle Rock Coal Co.....	Gunnison.....	Bituminous.....	79	2	525	15
Baldwin Star.....	Baldwin Fuel Co.....	Baldwin.....	Bituminous.....	58	1	439	50
Number	of Mines operated: 12			126.1	528	404,209	

HUERFANO COUNTY							
Robinson No. 1.....	Colorado Fuel & Iron Co.....	Walsen.....	Bituminous.....	22.9	219	30,385	1,500
Robinson No. 3.....	Colorado Fuel & Iron Co.....	Walsen.....	Bituminous.....	11.6	236	12,882	1,400
Robinson No. 4.....	Colorado Fuel & Iron Co.....	Farr.....	Bituminous.....	182.6	234	240,316	1,600
(Cameron)	Colorado Fuel & Iron Co.....	Tioga.....	Bituminous.....	178.9	171	139,705	850
Kebler No. 2.....	Colorado Fuel & Iron Co.....	Alamo.....	Bituminous.....	213	143	95,913	1,000
Alamo No. 1.....	Alamo Coal Co.....	Alamo.....	Bituminous.....	155	94	69,967	1,000
Alamo No. 2.....	Barbour Coal Co.....	Oakview.....	Bituminous.....	72	31	12,016	150
Oakdale.....	Oakdale Coal Co.....	Delcarbon.....	Bituminous.....	133	162	79,613	1,000
Calumet No. 1.....	Calumet Fuel Co.....	Delcarbon.....	Bituminous.....	126	79	53,284	1,000
Calumet No. 2.....	Calumet Fuel Co.....	Delcarbon.....	Bituminous.....	127	106	37,899	400
Ravenwood.....	Callente Coal Co.....	Ravenwood.....	Bituminous.....	127			

HUIERFANO COUNTY—Continued

Number	of Mines operated :	28	1,194.1	1,948	975,397
Maitland	Callente Coal Co.	Bituminous.	69.5	34	14,748
Pryor	Pryor Coal M. Co.	Bituminous	118.2	82	46,484
Gordon	Gordon Coal Co.	Bituminous	167	58	37,145
Ojo Canon	Peachey Coal Co.	Bituminous	244	40	20,117
Mutual	Mutual Coal Co.	Bituminous	92	60	17,878
Toltec	Aztec Coal M. Co.	Bituminous	56.3	49	17,771
Sunnyside	Elk Heart Coal Co.	Bituminous	86	56	15,853
Torrid	Torrid Coal M. Co.	Bituminous	159	27	12,568
Vesta	Minnequa Fuel Co.	Bituminous	244	25	11,544
Bunker Hill	Steve Mattivi & Sons	Bituminous	192	8	3,840
Black Hawk	Dale & Smith	Bituminous	229	5	2,067
George No. 1	Sam George & Sons	Bituminous	51	4	484
George No. 2	Sam George & Sons	Bituminous	142	6	750
Caddell No. 3	Ed Caddell	Bituminous	155	4	908
Fruth	George Fruth	Bituminous	80	9	649
Caddell No. 1	Sweet Bros.	Bituminous	84	4	470
San Isabel	San Isabel Coal M. Co.	Bituminous	151	1	111
Chaparral Canon	L. V. Powell	Bituminous	60	1	30
Number	of Mines operated :	28	1,194.1	1,948	975,397

JACKSON COUNTY

Moore No. 1 and Strip Pit.....	North Park Coal Co.....	Coalmont.....	Semi-bituminous.....	277	49	40,031
Marr.....	George M. Barnell.....	Walden.....	Semi-bituminous.....	210	5	4,193
Mitchell.....	Geo. W. Davidson.....	Walden.....	Semi-bituminous.....	30	1	74
Number	of Mines operated : 3.....			248.1	55	44,298

JEFFERSON COUNTY

[illegible]

TABLE D—1931—Continued.
LA PLATA COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
Castle.....	Castle Coal & M. Corp.....	Durango.....	Bituminous.....	275	7	5,587	150
Triangle.....	Triangle Coal Co.....	Durango.....	Bituminous.....	143	7	5,049	.....
O. K.....	O. K. Coal Co.....	Durango.....	Bituminous.....	97	13	5,032	50
Black Diamond.....	Black Diamond Coal Co.....	Durango.....	Bituminous.....	108	7	3,712	100
Sunshine.....	Sunshine Coal Co.....	Durango.....	Bituminous.....	186	3	3,538	25
Morning Star.....	Bandino & Co.....	Durango.....	Bituminous.....	153	3	2,495	16
Valley View.....	Valley View Coal Co.....	Mancos.....	Bituminous.....	145	2	1,022	10
Durango.....	Durango Coal Co.....	Durango.....	Bituminous.....	139	6	931	25
Peerless.....	Peerless Coal Co.....	Durango.....	Bituminous.....	67	4	783	.....
Morning Glory.....	Chas. Yingling.....	Bayfield.....	Bituminous.....	157	2	771	25
Tipotsch.....	Frank Tipotsch.....	Hesperus.....	Bituminous.....	165	1	552	.....
Hunt.....	Wm. Hunt.....	Hesperus.....	Bituminous.....	134	2	501	6
Superior.....	Superior Fuel Co.....	Durango.....	Bituminous.....	87	2	393	100
Excelsior.....	D. E. Richardson.....	Bayfield.....	Bituminous.....	164	1	396	.....
Shamrock.....	Taylor Bros.....	Bayfield.....	Bituminous.....	75	1	311	.....
Pine River.....	Herman Schultz.....	Bayfield.....	Bituminous.....	107	1	310	10
Ft. Lewis.....	Xavier Dufur.....	Kline.....	Sub-bituminous.....	110	1	165	10
Hammond.....	M. F. Leonard.....	Bayfield.....	Sub-bituminous.....	90	1	114	.....
Number	of Mines operated: 18.			139.2	64	31,662	
LARIMER COUNTY							
Benson.....	Miller Coal Co.....	Carr (Star Route).....	Sub-bituminous.....	128	7	1,222	.....
Veasey.....	Reed & Maylan.....	Carr.....	Sub-bituminous.....	80	3	570	6
Pioneer.....	Walter Overcamp.....	Wellington.....	Sub-bituminous.....	60	2	72	5
Knox.....	Knox Coal Co.....	Carr.....	Sub-bituminous.....	20	3	50	10
Number	of Mines operated: 4.			87.4	15	1,914	

LAS ANIMAS COUNTY

Frederick.....	Colorado Fuel & Iron Co.....	Valdez.....	Bituminous.....	118.9	478	281,888
Morley.....	Colorado Fuel & Iron Co.....	Morley.....	Bituminous.....	89.1	447	188,401
Toller.....	Colorado Fuel & Iron Co.....	Tollerburg.....	Bituminous.....	50	276	67,790
Delagua.....	Victor-American Fuel Co.....	Delagua.....	Bituminous.....	185.9	351	267,106
Brodhead No. 9.....	Temple Fuel Co.....	Brodhead.....	Bituminous.....	139	198	114,286
Kenneth.....	Vickers Coal Co.....	Rugby.....	Bituminous.....	199	65	52,103
Bear Canon No. 6.....	American Smelting & Ref. Co.....	Cokedale.....	Bituminous.....	111	144	82,076
Ludlow.....	Bear Canon Coal Co.....	Valloriso.....	Bituminous.....	127	89	55,470
Empire.....	Huerfano Coal Co.....	Ludlow.....	Bituminous.....	120	117	48,895
Creston.....	Empire Coal M. Co.....	Aguliar.....	Bituminous.....	80.3	56	35,746
Dix.....	Jewel Collieries Corp.....	Aguliar.....	Bituminous.....	169	49	33,542
Sopris No. 1.....	Dick Coal Co.....	Walsenburg.....	Bituminous.....	135	32	25,751
Rapson.....	Deldosso Coal Co.....	Sopris.....	Bituminous.....	158	30	21,455
Anchor.....	Pio Michell.....	Rapson.....	Bituminous.....	220	32	16,541
Thor.....	Phoenix Fuel Co.....	Trinidad.....	Bituminous.....	97.5	29	8,258
Jeffreyes.....	Thor Fuel Co.....	Trinidad.....	Bituminous.....	93.3	55	7,588
Bowen.....	Jeffreyes Fuel Co.....	Trinidad.....	Bituminous.....	298	7	6,148
La Belle.....	Home Fuel & Supply Co.....	Trinidad.....	Bituminous.....	283	6	3,759
Engle.....	Wm. Morgan.....	Trinidad.....	Bituminous.....	138	6	2,045
Baldy.....	James Wilson.....	Trinidad.....	Bituminous.....	101	4	1,514
Bunker Hill No. 2.....	Baldy Coal Co.....	Trinidad.....	Bituminous.....	244.5	3	1,492
Pritchard.....	O. C. Cook.....	Trinidad.....	Bituminous.....	59	8	1,214
Fishers Peak.....	Chas. Pritchard.....	Trinidad.....	Bituminous.....	172	3	1,183
Santa Fe.....	Marsh Coal Co.....	Trinidad.....	Bituminous.....	167	2	871
Star.....	Santa Fe Coal Co.....	Trinidad.....	Bituminous.....	83	6	829
Lakeview.....	Star Coal Co.....	Aguliar.....	Bituminous.....	200	2	681
Fairview.....	Nick Riggs.....	Trinidad.....	Bituminous.....	125	2	687
Martinez.....	Davich Coal Co.....	Rapson.....	Bituminous.....	142	2	668
Frisco.....	W. H. Owen.....	Trinidad.....	Bituminous.....	180	2	566
Daisy.....	Rafael Martinez.....	Cokedale.....	Bituminous.....	267	1	519
Ferrill.....	Frisco Coal Co.....	Trinidad.....	Bituminous.....	96	3	385
Timber Canon.....	Daisy Coal Co.....	Aguliar.....	Bituminous.....	69	3	377
Standard.....	J. A. Hollingsworth.....	Trinidad.....	Bituminous.....	176	2	369
	O. C. Cook.....	Trinidad.....	Bituminous.....	53	7	354
	Standard Coal Co.....	Trinidad.....	Bituminous.....	125	3	350

TABLE D—1931—Continued.
LAS ANIMAS COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Blue Blaze	Blue Blaze Coal Co.	Trinidad	Bituminous	172	3	299	20
Little Mary	Harvey & Sons	Trinidad	Bituminous	200	3	250	10
New Congo	Cash & Carry Coal Co.	Aguliar	Bituminous	90	2	200	10
Hill Top	Trinidad Coal Co.	Cokedale	Bituminous	170	3	184	4
Wiley	Fidrlizzi, McDonald & Miller	Trinidad	Bituminous	99	2	131	4
Rudy	Rudy Coal Co.	Cokedale	Bituminous	56	2	119	10
Forbes	W. E. Riggs	Trinidad	Bituminous	74	3	112	10
Flag	Joe Rogelio	Trinidad	Bituminous	20	2	110	10
Medina	Pete Medina	Weston	Bituminous	40	2	80	3
Madrid	A. Santisteran	Cokedale	Bituminous	20	2	20	20
Beshour	Joerger Coal Co.	Trinidad	Bituminous	200	2	850	20
Vigil	Vigil Fuel Co.	Segundo	Bituminous	35	2	87	3
Pickford	Boaglio Coal Co.	Trinidad	Bituminous	230	2	650	3
Number	of Mines operated: 48.			125.5	2,550	1,333,999	
MESA COUNTY							
Cameo	McNell Coal Corp.	Cameo	Semi-bituminous	128	50	44,386	600
Pallsade	Pallsade Coal Lease Co.	Pallsade	Semi-bituminous	220	15	8,713	200
Garfield	Garfield Coal Co.	Pallsade	Bituminous	207	11	7,890	200
Winger	Clark Coal Co.	Pallsade	Bituminous	136	4	3,451	50
Riverside	Riverside Coal Co.	Pallsade	Semi-bituminous	180	6	2,730	50
Stove Canon	Stove Canon Coal Co.	Frulta	Bituminous	171.5	4	2,462	30
Hidden Treasure	Hidden Treasure Coal Co.	Frulta	Bituminous	190	4	2,360	30
Stokes	W. D. Stokes	Pallsade	Semi-bituminous	158	6	2,343	80

MESA COUNTY—Continued

Williams.....	Williams Coal Co.....	Grand Junction.....	Semi-bituminous.....	173	4	1,813	.....
McGinley.....	Wm. McGinley.....	Grand Junction.....	Bituminous.....	201	2	1,502	.....
Corcoran.....	Apleton Coal Co.....	Grand Junction.....	Bituminous.....	209	2	1,082	15
Mt. Lincoln.....	Mt. Lincoln Coal Co.....	Palisade.....	Semi-bituminous.....	184	2	1,078	.....
P. V.....	Kovak & Skoda.....	Cameo.....	Bituminous.....	215	2	939	15
Farmers Mutual.....	Farmers Mutual Coal Co.....	Grand Junction.....	Semi-bituminous.....	141	4	785	25
Midwest.....	Midwest Development Corp.....	Grand Junction.....	Bituminous.....	131	4	1,071	25
Hunter.....	J. B. Hunter.....	Fruita.....	Bituminous.....	175	2	553	.....
Thomas.....	Thomas Coal Co.....	Grand Junction.....	Semi-anthracite.....	200	2	546	.....
Anchor No. 1.....	Anchor Coal Co.....	Fruita.....	Bituminous.....	109	2	486	.....
Coal Gulch.....	Coal Gulch Coal Co.....	Fruita.....	Bituminous.....	196	2	493	.....
Peacock.....	Peacock Coal Co.....	Grand Junction.....	Semi-bituminous.....	110	2	433	4
Liberty.....	Liberty Coal & Merc. Co.....	Fruita.....	Bituminous.....	182	2	370	3
Grasso.....	N. Grasso.....	Grand Junction.....	Bituminous.....	40	2	176	25
Mt. Garfield.....	B. Gearhart.....	Palisade.....	Bituminous.....	281	7	7,027	.....
Number	of Mines operated: 23.....	.....	.....	187.1	141	92,679	.....

MOFFAT COUNTY

Ute (Collom).....	Ute Coal Co.....	Axial.....	Bituminous.....	222	3	1,685	5
Shaver.....	Phelan & Shaver.....	Axial.....	Bituminous.....	206	3	1,421	20
Hart.....	Hart Coal Co.....	Craig.....	Sub-bituminous.....	60	6	756	10
Whitlock.....	E. E. Whitlock.....	Hamilton.....	Bituminous.....	20	1	91	.....
Number	of Mines operated: 4.....	.....	.....	128	13	3,953	.....

MONTEZUMA COUNTY

Spencer.....	Geo. S. Spencer.....	Mancos.....	Sub-bituminous.....	167	2	924	10
School-Sec. Lease.....	Mancos Coal & Fuel Co.....	Mancos.....	Sub-bituminous.....	159	2	837	20
Pinos Altos.....	H. A. Ainsworth.....	Mancos.....	Sub-bituminous.....	272	2	696	.....
Cortez.....	Cortez Coal Co.....	Cortez.....	Sub-bituminous.....	184	1	640	.....
Wilden.....	Willden Coal Co.....	Mancos.....	Sub-bituminous.....	260	2	413	.....

TABLE D—1931—Continued.
MONTEZUMA COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Black Ace.....	George Stakish.....	Lewis.....	Bituminous.....	147	2	380	.....
Dolores.....	Sagrillo & Clark.....	McPhee.....	Semi-bituminous.....	40	2	250	.....
Mesa Verde.....	G. B. Cushman.....	Cortez.....	Sub-bituminous.....	48	2	174	.....
Morris.....	G. W. Morris.....	Dolores.....	Sub-bituminous.....	60	2	170	5
Braden.....	Olney Braden.....	Dolores.....	Sub-bituminous.....	67	2	105	.....
Todd.....	David Gantz.....	Cortez.....	Sub-bituminous.....	60	2	104	6
McCargish.....	Ed McCargish.....	Yellow Jacket.....	Sub-bituminous.....	60	1	97	.....
Bud Ince.....	Bud Ince.....	Lebanon.....	Bituminous.....	90	1	90	1
Sunnyside.....	Greenwood & Arnett.....	Lebanon.....	Bituminous.....	50	1	70	8
Mancos Hill.....	Mancos Hill Coal Co.....	Mancos.....	Bituminous.....	13	4	35	10
Number	of Mines operated: 15.			107	28	4,985	
MONTROSE COUNTY							
Liberty Bell.....	Liberty Bell Coal Co.....	Nuclea.....	Bituminous.....	240	2	678	6
Independence.....	Wm. J. Oberding.....	Nuclea.....	Bituminous.....	110	1	190	.....
Cloverdale.....	C. E. Mix.....	Nuclea.....	Bituminous.....	24	2	127	.....
Pleasant Valley.....	Chas. A. Rice.....	Nuclea.....	Sub-bituminous.....	67	1	82	3
Mountain View.....	Mountain View Coal Co.....	Colona.....	Sub-bituminous.....	35	4	65	2
Number	of Mines operated: 5.			84.5	10	1,143	

OURAY COUNTY

Kennedy.....	H. A. Kennedy.....	Ridgway.....	Sub-bituminous.....	194	2	942
Green Mountain.....	Lowery & Spence.....	Ridgway.....	Sub-bituminous.....	150	2	400
Bright Diamond.....	E. G. Slagle.....	Ridgway.....	Sub-bituminous.....	80	2	205
Colona.....	Colona Coal Co.....	Colona.....	Sub-bituminous.....	56	1	146
Tyler.....	Burro Creek Coal Co.....	Montrose.....	Sub-bituminous.....	25	1	49
Number	of Mines operated: 5.....			116.1	8	1,742

PARK COUNTY

South Park.....	South Park Coal Co.....	Como.....	Bituminous.....	60	4	200
Number	of Mines operated: 1.....			60	4	200

PITKIN COUNTY

Placita.....	Placita Coal M. Co.....	Placita.....	Bituminous.....	163	16	10,175
Number	of Mines operated: 1.....			163	16	10,175

RIO BLANCO COUNTY

Pollard.....	Electric Coal Co.....	Meeker.....	Bituminous.....	253	4	3,128
McKee.....	Electric Coal Co.....	Meeker.....	Bituminous.....	122	2	351
New Pollard.....	C. F. Pollard.....	Meeker.....	Bituminous.....	292	2	1,924
Lion Canon.....	Lion Canon Coal Co.....	Meeker.....	Bituminous.....	190	2	1,188
Fairfield.....	E. F. Fairfield.....	Meeker.....	Bituminous.....	120	1	400
Nine Mile Hill.....	Thos. D. Foreman.....	Meeker.....	Bituminous.....	143	1	384
Douglas Creek.....	Jones & Trachta.....	Rangely.....	Bituminous.....	75	1	310
Reinau.....	R. C. Reinau.....	Meeker.....	Bituminous.....	50	1	133
Ford.....	J. D. Ford.....	Rio Blanco.....	Bituminous.....	90	1	129
Number	of Mines operated: 9.....			173.2	15	7,947

TABLE D—1931—Continued.

ROUTT COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Oak Hills No. 1 & 2.....	Moffat Coal Co.....	Oak Creek.....	Bituminous.....	75.2	188	121,159	4,000
Arrowhead.....	Moffat Coal Co.....	Oak Creek.....	Bituminous.....	90	2	912	300
Harris.....	Colorado & Utah Coal Co.	Mt. Harris.....	Bituminous.....	51.2	160	103,020	4,000
Pinnacle.....	Victor-American Fuel Co.	Oak Creek.....	Bituminous.....	40.4	144	75,658	1,750
Wadge.....	Victor-American Fuel Co.	Mt. Harris.....	Bituminous.....	17.1	37	20,632	1,000
Hayden No. 3.....	Hayden Coal Co.....	Haybro.....	Bituminous.....	69.7	112	91,672	1,500
Keystone.....	Keystone Coal Co.....	Routt.....	Bituminous.....	65.1	83	44,414	1,000
McNeil.....	McNeil Coal Corp.....	McGregor.....	Bituminous.....	130	54	34,853	500
Bear River.....	Bear River Coal Co.....	Bear River.....	Bituminous.....	46.5	63	29,908	1,000
P. K. No. 1.....	Pinnacle-Kemmerer Fuel Co.	Mt. Harris.....	Bituminous.....	54.5	75	25,767	500
Seven Points.....	Seven Points Coal Co.....	Phippsburg.....	Bituminous.....	236	6	8,428	---
Argo.....	Geo. T. Rolfs.....	Oak Creek.....	Bituminous.....	221	7	5,880	50
Babson.....	Babson Coal Co.....	Hayden.....	Bituminous.....	208	3	2,042	20
Fish Creek.....	Kaspar Weberkirch.....	Hayden.....	Bituminous.....	112	2	1,288	---
Hayden Mutual.....	Hayden Valley M. Coal Co.	Hayden.....	Bituminous.....	156	3	1,200	15
Block.....	E. H. Zimmerman.....	Steamboat Springs.....	Bituminous.....	146	3	1,046	50
Colorado.....	Colorado-Pinnacle Coal Co.	Hayden.....	Bituminous.....	178	6	1,008	---
Ritchneg.....	John Ritchneg.....	Bear River.....	Bituminous.....	108	2	906	12
Jones.....	Jones Coal Co.....	Bear River.....	Bituminous.....	151	1	857	15
Premium.....	Fruth & Micheletti.....	Milner.....	Bituminous.....	97	2	697	20
Sage Creek.....	Robert Hendricks.....	Hayden.....	Bituminous.....	120	2	650	---
Trout Creek.....	Trout Creek Coal Co.....	Oak Creek.....	Bituminous.....	151	1	359	2
Butcher Knife.....	Butcher Knife Coal Co.	Steamboat Springs.....	Bituminous.....	69	3	356	---
Edna.....	Edna Coal Co.....	Oak Creek.....	Bituminous.....	94	2	352	30
Amos.....	Amos Coal Co.....	McGregor.....	Bituminous.....	91	1	291	50
Scott.....	J. E. Webber.....	Pagoda.....	Bituminous.....	68	1	250	---
Black Wolf.....	Mountain States Fuel Co.	Mt. Harris.....	Bituminous.....	67.5	3	204	10

ROUTT COUNTY—Continued

McCroskey.....	R. Z. McCroskey.....	Milner.....	Bituminous.....	90	1	106
Walter.....	John Bainton.....	Mt. Harris.....	Bituminous.....	26	1	102
Black Cat.....	P. A. Muer.....	Steamboat Springs.....	Bituminous.....	90	1	88
Chergo.....	Tom Chergo.....	Oak Creek.....	Bituminous.....	90	1	75
Jake.....	J. H. Dowhower.....	Steamboat Springs.....	Bituminous.....	40	1	31
Number.....	of Mines operated: 32.....			68.1	971	574,211

SAN MIGUEL COUNTY

Horton.....	Horton Coal Co.....	Norwood.....	Sub-bituminous.....	260	2	510
Gray.....	L. J. Gray.....	Norwood.....	Sub-bituminous.....	120	1	321
Keck.....	Hardman & Son.....	Norwood.....	Sub-bituminous.....	120	3	320
Royers.....	J. S. Royers.....	Norwood.....	Sub-bituminous.....	100	2	200
Marriott.....	Wm. Marriott.....	Norwood.....	Sub-bituminous.....	120	1	153
Number.....	of Mines operated: 5.....			146.7	9	1,504

WELD COUNTY

Columbine.....	Rocky Mountain Fuel Co.....	Serene.....	Sub-bituminous.....	224.1	239	275,072
Grant.....	Rocky Mountain Fuel Co.....	Frederick.....	Sub-bituminous.....	189	165	195,757
Boulder Valley.....	Boulder Valley Coal Co.....	Erie.....	Sub-bituminous.....	144	148	1,100
Clayton.....	Clayton Coal Co.....	Erie.....	Sub-bituminous.....	161	190	251,064
Morrison.....	Clayton Coal Co.....	Erie.....	Sub-bituminous.....	212	66	178,139
Puritan.....	National Fuel Co.....	Frederick.....	Sub-bituminous.....	176.2	188	57,987
Imperial.....	Imperial Coal Co.....	Erie.....	Sub-bituminous.....	164	183	189,755
Baum.....	Consolidated Coal & Coke Co.....	Dacono.....	Sub-bituminous.....	194	109	158,787
Shamrock.....	Shamrock Coal Co.....	Frederick.....	Sub-bituminous.....	105.3	90	106,705
Sterling.....	McNeil Coal Corp.....	Dacono.....	Sub-bituminous.....	146	67	87,885
Russell.....	W. E. Russell Coal Co.....	Frederick.....	Sub-bituminous.....	123	72	74,662
Liley.....	Liley Coal & Land Co.....	Frederick.....	Sub-bituminous.....	205	42	64,372
White Ash.....	White Ash Coal Co.....	La Salle.....	Sub-bituminous.....	175	4	43,753
Sunset.....	Sunset Fuel Co.....	La Salle.....	Sub-bituminous.....	91	2	2,146
Number.....	of Mines operated: 14.....			174.6	1,535	229
						1,686,313

STATE OF COLORADO

Total Number of Mines Operated.....	318
Total Number of Man-Days Worked.....	139.7
Total Number of Men Employed (Average).....	10,015
Total Number of Tons of Coal Produced.....	6,604,063

TABLE D—1932.

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1932 AND CAPACITY OF MINE PER DAY IN TONS.

ARAPAHOE COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
Air Line.....	C. J. Gallagher.....	Deer Trail.....	Sub-bituminous.....	60	2	290	10
Number	of Mines operated : 1.....			60	2	290	

ARCHULETA COUNTY

A. & B.....	Antonati & Bellini.....	Pagosa Junction.....	Sub-bituminous.....	90	2	315	2
Cox.....	T. L. Cox.....	Pagosa Springs.....	Bituminous.....	180	2	190	1
McBroom.....	Chas. McBroom.....	Dyke.....	Bituminous.....	14	1	96	
Nossaman.....	W. J. Nossaman.....	Pagosa Springs.....	Bituminous.....	100	1	85	
Hardman.....	A. L. Harrington.....	Dyke.....	Bituminous.....	20	1	65	
Number	of Mines operated : 5.....			96.3	7	751	

BOULDER COUNTY

Industrial.....	Rocky Mountain Fuel Co.....	Superior.....	Sub-bituminous.....	167.8	168	121,416	800
Vulcan.....	Rocky Mountain Fuel Co.....	Lafayette.....	Sub-bituminous.....	239.1	62	58,983	225
Standard.....	Rocky Mountain Fuel Co.....	Lafayette.....	Sub-bituminous.....	212.5	46	45,364	300
Monarch No. 2.....	National Fuel Co.....	Broomfield.....	Sub-bituminous.....	231	132	101,897	650
Hil-Way.....	Louisville-Lafayette Coal Co.....	Broomfield.....	Sub-bituminous.....	279	82	91,987	750
Crown.....	David Allan.....	Gorham.....	Sub-bituminous.....	218	75	65,507	500
Black Diamond No. 2.....	Black Diamond Fuel Co.....	Lafayette.....	Sub-bituminous.....	310	55	58,385	500

BOULDER COUNTY--Continued

High View	High View Coal Co.	Gorham	Sub-bituminous	215	7	5,769	50
Pluto	Domestic Coal Co.	Boulder	Sub-bituminous	208	9	5,172	150
Gorham No. 2	Eldorado Coal Co.	Gorham	Sub-bituminous	258	6	5,099	60
Fireside	KoZ Coal Mining Co.	Louisville	Sub-bituminous	298.5	8	3,543	35
New Kcss.	New Ross Coal Co.	Gorham	Sub-bituminous	130	7	2,858	30
Sunrise	Sunrise Coal Co.	Gorham	Sub-bituminous	226	3	1,970	20
Indino	Sunrise Coal Co.	Gorham	Sub-bituminous	25	4	400	
Peerless	Peerless Coal Co.	Gorham	Sub-bituminous	105	5	1,738	17
Pittsburgh	Pittsburgh Coal Co.	Gorham	Sub-bituminous	195	4	1,216	15
Cactus	Cactus Coal Co.	Boulder	Sub-bituminous	26	3	230	10
Number	of Mines operated: 17			221.8	676	571,534	

DELTA COUNTY

King	Juanita Coal & Coke Co.	Bowie	Bituminous	65	36	27,186	1000		
Green Valley	Green Valley Coal Co.	Cedaredge	Bituminous	272	6	5,565			
Red Canon	Red Canon Coal Co.	Cedaredge	Bituminous	290	4	3,927			
Winton	Winton Coal Co.	Austin	Semi-bituminous	158	2	2,446	80		
States	States-Hall Coal Co.	Cedaredge	Semi-bituminous	229	4	2,257			
Red Mountain	States-Hall Coal Co.	Cedaredge	Semi-bituminous	214	4	1,544	40		
Independent	Independent Coal Co.	Cedaredge	Semi-bituminous	134	3	2,009			
Paonia	Paonia Farmers Coal Co.	Paonia	Semi-bituminous	188	3	1,859			
Western Star	Western Star Coal Co.	Cedaredge	Semi-bituminous	162	2	1,025	25		
Bennett	Bennett Coal Co.	Hotchkiss	Sub-bituminous	129	2	668	25		
Fitzsimmons	Hice Coal Co.	Paonia	Semi-bituminous	129	2	594	4		
Converse	Converse Coal Co.	Paonia	Semi-bituminous	121	1	461	20		
Gelwick	Gelwick Coal Co.	Hotchkiss	Semi-bituminous	74	3	402	10		
Fairview	M. D. Conrad	Austin	Semi-bituminous	150	1	371	20		
Rollins	Rollins Fuel Co.	Delta	Semi-bituminous	50	2	256			
North Star	North Star Coal Co.	Delta	Semi-bituminous	46	4	119			
Lou Creek	T. M. Vowell	Lazear	Sub-bituminous	90	2	71	10		
Owens	Owens & Son	Hotchkiss	Sub-bituminous	45	1	49			
Number	of Mines operated: 18			122.3	82	50,809			

TABLE D—1932—Continued.

ELBERT COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Wright.....	Wright Barker.....	Matheson.....	Sub-bituminous.....	218	3	2,696	100
Mascot.....	Mascot Coal, Oil & Clay Co.....	Matheson.....	Sub-bituminous.....	161	4	809	100
Buick.....	Buick Coal Co.....	Agate.....	Sub-bituminous.....	90	2	400	.....
Shay.....	O. J. Shay.....	Matheson.....	Sub-bituminous.....	38	2	394	.....
Number	of Mines operated: 4.....			141.3	11	4,299	

EL PASO COUNTY

Pikeview.....	Pikes Peak Fuel Co.....	Colorado Springs.....	Sub-bituminous.....	219	160	215,441	1200
City Coal Mines.....	Colorado Springs Co.....	Colorado Springs.....	Sub-bituminous.....	209	64	40,286	500
Corley.....	Corley Coal Co.....	Colorado Springs.....	Sub-bituminous.....	257	34	28,670	300
Jimmy Camp.....	Thomas Mining Co.....	Colorado Springs.....	Sub-bituminous.....	208	20	12,756	100
Kurie.....	Kurie Coal Co.....	Colorado Springs.....	Sub-bituminous.....	258	13	6,434	.....
Franceville.....	Howells Coal Co.....	Colorado Springs.....	Sub-bituminous.....	123	14	3,009	75
Climax.....	Danville Coal Co.....	Colorado Springs.....	Sub-bituminous.....	220	2	2,894	.....
Altitude.....	Altitude Fuel Co.....	Colorado Springs.....	Sub-bituminous.....	318	9	2,345	40
Drennan.....	Drennan Coal Co.....	Fountain.....	Sub-bituminous.....	176	2	1,269	25
Golden Dawn.....	Elliott & Magee.....	Yoder.....	Sub-bituminous.....	201	2	495	.....
Number	of Mines operated: 10.....			220.1	320	313,599	

FREMONT COUNTY

Chandler	Victor-American Fuel Co.	Bituminous	279	112,656	1000
Rockvale No. 2	John D. Cribbs	Bituminous	71	26,493	350
Rockvale No. 3	Rockvale Fuel & Iron Co.	Bituminous	40	48,968	400
Canon	Canon-Relliance Coal Co.	Bituminous	86	47,628	500
Double Dick	Double Dick Coal Co.	Bituminous	37	17,350	75
Ideal	Double Dick Coal Co.	Bituminous	7	1,411	.....
Caldriola	Caldriola Coal Co.	Semi-bituminous	18	16,033	100
Canon Monarch	Canon Monarch Coal Co.	Bituminous	25	13,505	10
Griffiths	Griffiths Coal Co.	Bituminous	17	12,601	75
New Fremont	Giuliano-Carpine Coal Co.	Bituminous	32	9,841	50
Cedar Canon	Giuliano-Carpine Coal Co.	Bituminous	15	5,383	50
South Magnet	Canon Quality Coal Co.	Bituminous	26	7,823	.....
Brookside	Orecchio Coal Co.	Bituminous	25	7,694	45
Rochio	Rochio Coal Co.	Semi-bituminous	11	6,246	50
Bluff Springs No. 2	Bluff Springs Leasing Co.	Bituminous	22	5,876	.....
Newlan	F. V. Bloom	Bituminous	10	3,395	.....
Willie No. 3	Perry & Fiorina	Semi-bituminous	5	2,586	20
American Independent	American Independent Coal Co.	Semi-bituminous	8	2,000	12
Canon District	Lippis & Bosco Coal Co.	Bituminous	6	1,915	15
Canon Imperial	Canon Imperial Coal Co.	Bituminous	24	1,624	.....
Cuckoo	Cuckoo Coal Co.	Bituminous	6	1,368	10
Bald	Bald Coal Co.	Bituminous	10	1,009	30
Jack O' Lantern	Beer Coal Co.	Bituminous	10	887	30
Katting	Martin Katting	Florence	4	724	.....
Willie No. 1	Paul Carsilia	Bituminous	1	650	3
Willie No. 2	James Brothers	Bituminous	2	475	2
Yellico	Yellico & Yellico	Bituminous	2	498	.....
Canon Liberty	Canon Liberty Coal Co.	Bituminous	6	349	10
Brewster	Brewster Coal Co.	Bituminous	2	314	4
New Brewster	Brewster Coal Co.	Bituminous	3	263	.....
Fawn Hollow	Fawn Hollow Coal Co.	Bituminous	10	175	10
North Magnet	Pelino Coal Co.	Bituminous	3	149	.....
Number	of Mines operated : 32		823	357,987	.....

TABLE D—1932—Continued.

GARFIELD COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
South Canon.....	South Canon Mine Leasing Co.....	Glenwood Springs.....	Bituminous.....	228	10	15,265	75
Carbonera.....	Gilson Asphaltum Co.....	Mack.....	Bituminous.....	162.5	8	6,869	60
McDonald.....	W. G. McDonald.....	Glenwood Springs.....	Bituminous.....	119	4	1,819	200
Rauman.....	Rauman Coal Co.....	Rifle.....	Bituminous.....	246	2	1,460	10
Estes.....	Estes Bros.....	Rifle.....	Bituminous.....	144	2	1,445	.....
Ziesenis.....	Henry Ziesenis.....	Rifle.....	Bituminous.....	148.8	2	1,426	.....
Harvey Gap.....	James Le Donne.....	New Castle.....	Bituminous.....	234	4	1,165	10
Earnest.....	Kenneth Gardner.....	Carbondale.....	Bituminous.....	252	2	1,042	10
Roberson.....	Roberson Coal Co.....	Rifle.....	Bituminous.....	365	2	780	.....
Silt.....	Morgan Coal Co.....	Silt.....	Bituminous.....	143	2	706	.....
Ohkraut.....	Frank Deboy.....	Glenwood Springs.....	Bituminous.....	126	1	624	.....
North Canon.....	Rifle Coal Mines, Inc.....	Rifle.....	Bituminous.....	76	2	456	.....
Paradise.....	Angelo Bellodi.....	Glenwood Springs.....	Bituminous.....	102	2	234	.....
McLearn.....	Crumpley Coal Co.....	Rifle.....	Bituminous.....	30	2	110	.....
Old Keystone.....	Church & Schlegel.....	New Castle.....	Bituminous.....	55	3	43	.....
Number	of Mines operated: 15.....	.....	.....	172.8	48	33,444	.....

GUNNISON COUNTY

Crested Butte.....	Colorado Fuel & Iron Co.....	Crested Butte.....	Bituminous.....	118.2	184	140,671	1200
Somerset.....	Calumet Fuel Co.....	Somerset.....	Bituminous.....	114	98	124,594	1200
Oliver.....	Oliver Coal Co.....	Somerset.....	Semi-anthracite.....	200	41	46,704	500
Alpine.....	Rocky Mountain Fuel Co.....	Baldwin.....	Semi-bituminous.....	126	60	37,276	350
Horace.....	Horace Anthracite Co.....	Crested Butte.....	Anthracite.....	107.8	78	25,390	275
Bulkeley No. 2.....	Crested Butte Coal Co.....	Crested Butte.....	Bituminous.....	213	28	22,545	500
Ohio Creek.....	Ohio Creek Coal Co.....	Gunnison.....	Bituminous.....	130	5	1,772	50

GUNNISON COUNTY—Continued

Hawks Nest.	Clement Audin.	Somerset.	Bituminous	147.5	3	1,636	14
Bear.	Tony Bear.	Somerset.	Bituminous	180	4	1,283	4
Castle Rock	Castle Rock Coal Co.	Gunnison.	Sub-bituminous	131	2	1,004	20
Richardson	Richardson Coal Co.	Gunnison.	Bituminous	140	2	886	10
Carbon Creek	Carbon Creek Coal Co.	Gunnison.	Bituminous	189	1	388	.....
Baldwin-Star	Baldwin Fuel Co.	Gunnison.	Sub-bituminous	40	1	300	20
Hinkle.	Stuart M. Anderson.	Gunnison.	Sub-bituminous	67	2	265	8
Number	of Mines operated: 14			129.8	509	404,714	

HUERFANO COUNTY

Robinson No. 4.	Colorado Fuel & Iron Co.	Farr.	138.2	264	199,331	1000
Kebler No. 2.	Colorado Fuel & Iron Co.	Tioga.	198.2	165	81,807	850
Alamo No. 1.	Alamo Coal Co.	Alamo.	134	95	68,984	1000
Alamo No. 2.	Barbour Coal Co.	Alamo.	82	142	42,738	1000
Oakdale.	Oakdale Coal Co.	Oakview.	28	23	3,317	.....
Calumet No. 1.	Calumet Fuel Co.	Delcarbon.	101.1	122	53,832	600
Calumet No. 2.	Calumet Fuel Co.	Delcarbon.	41.5	63	13,835	600
Gordon.	Gordon Coal Co.	Gordon.	202	53	45,870	500
Pryor.	Pryor Coal M. Co.	Pryor.	91.2	95	42,942	500
Ravenwood.	Caliente Coal Co.	Ravenwood.	83	105	27,551	400
Maitland.	Caliente Coal Co.	Maitland.	59	42	11,700	300
Vesta.	Minnequa Fuel Co.	Walsenburg.	172	24	19,065	.....
Sunnyside.	Elk Heart Coal Co.	Walsenburg.	93.3	40	17,091	.....
Ojo Canon.	Peachey Coal Co.	La Veta.	206	43	16,955	150
Toltec.	Aztec Coal Mining Co.	Toltec.	41	46	8,872	.....
Torrid.	Torrid Coal Mining Co.	Agular.	159	10	6,585	50
Black Hawk.	Black Hawk Coal M. Co.	Walsenburg.	257	10	4,146	25
Mutual.	Mutual Coal Co.	Walsenburg.	17	70	3,224	250
Bunker Hill.	Steve Mattivi & Sons.	Rapson.	100	3	2,000	20
Leader.	Leader Coal Co.	Walsenburg.	150	5	1,805	15
Niggerhead.	Niggerhead Mining Co.	Agular.	41	16	1,276	.....
George No. 2.	Sam George & Sons.	La Veta.	248	4	1,258	12
Fruth.	Geo. Fruth.	Walsenburg.	55	9	1,382	.....

TABLE D—1932—Continued.

HUERFANO COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
Caddell No. 3	Caddell Coal Co.	Walsenburg	Bituminous	125	8	1,253	20
Round Oak	Giordano Coal Co.	Walsenburg	Bituminous	220	3	493	6
La Veta Pass	J. Murrell	La Veta	Bituminous	132	2	351	5
Costa	Costa Coal Co.	Toilec	Bituminous	90	2	300	10
Bunker Hill No. 2	Sours Coal Co.	Walsenburg	Bituminous	44	4	105	10
Bunker Hill No. 3	Myers & West	Rapson	Bituminous	100	2	165	10
Chapparal Canon	L. V. Powell	La Veta	Bituminous	65	1	119	10
Klikus	Klikus Coal Co.	La Veta	Bituminous	200	3	100	1
Caddell No. 1	Sweet Bros.	Walsenburg	Bituminous	30	2	40	1
Number	of Mines operated: 32			108.3	1476	678,492	

JACKSON COUNTY

Moore No. 1 & Strip Pit	North Park Coal Co.	Coalmont	Semi-bituminous	192	53	41,127	700
Marr	Geo. M. Barnell	Walden	Semi-bituminous	193	4	2,192	
Conrad	Geo. M. Barnell	Walden	Semi-bituminous	25	1	60	
Mitchell	Geo. W. Davidson	Walden	Semi-bituminous	34	1	103	
Number	of Mines operated: 4			191.5	59	43,482	

JEFFERSON COUNTY

Leyden No. 3	Leyden Lignite	Leyden via Golden	Sub-bituminous	248.8	87	109,557	750
Christensen	Good Fuel Co.	Littleton	Sub-bituminous	296	26	18,920	160
Blue Bird	Blue Bird Mines, Inc.	Morrison	Sub-bituminous	170	9	3,083	
Unity	Unity Coal Co.	Littleton	Sub-bituminous	85	14	820	60
Number	of Mines operated: 4			235.9	136	132,380	

LA PLATA COUNTY

	Number							
Castle.....		Castle Coal & M. Co.....	Durango.....	Bituminous.....	257	6	4,653	50
O. K.....		O. K. Coal Co.....	Durango.....	Bituminous.....	96.5	10	4,245	50
Triangle.....		Triangle Coal Co.....	Durango.....	Bituminous.....	104	5	3,037	.....
Sunshine.....		Sunshine Coal Co.....	Durango.....	Bituminous.....	140	3	2,606	.....
Morning Star.....		Baudino & Co.....	Durango.....	Bituminous.....	192	3	2,569	13
Black Diamond.....		Black Diamond Coal Co.....	Durango.....	Bituminous.....	135	4	2,171	20
Valley View.....		Valley View Coal Co.....	Mancos.....	Bituminous.....	190	3	1,235	15
Peerless.....		Peerless Coal Co.....	Durango.....	Bituminous.....	106	3	1,278	.....
Durango.....		Durango Coal Co.....	Durango.....	Bituminous.....	95.7	3	533	6
Fort Lewis.....		Xavier Dufur.....	Kline.....	Sub-bituminous.....	115.5	2	543	15
Tipotsch.....		Frank Tipotsch.....	Hesperus.....	Sub-bituminous.....	179	1	482	.....
Excelsior.....		Chas. Batchelor.....	Bayfield.....	Bituminous.....	124	2	426	10
Morning Glory.....		Chas. Yingling.....	Bayfield.....	Bituminous.....	84	1	423	25
Shamrock.....		Bierce & Taylor.....	Bayfield.....	Bituminous.....	105	3	404	.....
Superior.....		Superior Fuel Co.....	Durango.....	Bituminous.....	124	2	312	.....
Soda Springs.....		Wood & Wood.....	Aztec (New Mexico).....	Bituminous.....	90	2	287	.....
Hunt.....		Wm. Hunt.....	Hesperus.....	Sub-bituminous.....	52	2	245	6
Pine River.....		Herman Schultz.....	Bayfield.....	Bituminous.....	93	1	179	.....
Hammond.....		M. F. Leonard.....	Bayfield.....	Bituminous.....	56	1	175	.....
Ellidge.....		Frank Ellidge.....	Durango.....	Bituminous.....	60	2	100	.....
Rasmussen.....		H. J. Rasmussen.....	Hesperus.....	Bituminous.....	60	1	75	.....
		of Mines operated: 21.....			127.6	60	25,978	.....

LARIMER COUNTY

Benson.....		Lowe Coal Co.....	Carr.....	Sub-bituminous.....	205	5	2,151	20
Hackman No. 1.....		Hackman Coal Co.....	Carr.....	Sub-bituminous.....	139	3	977	10
Ayshire.....		Ayshire Coal Co.....	Carr.....	Sub-bituminous.....	145	3	794	15
Pioneer.....		Walter Overcamp.....	Carr.....	Sub-bituminous.....	284	3	497	.....
White Rose.....		White Rose Coal Co.....	Carr.....	Sub-bituminous.....	105	3	260	10
		of Mines operated: 5.....			175.5	17	4,679	.....

TABLE D—1932—Continued.

LAS ANIMAS COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num-ber of Tons Produced	Capacity of Mine per Day, Tons
Frederick	Colorado Fuel & Iron Co.	Valdez	Bituminous	60.1	370	121,206	1800
Morley	Colorado Fuel & Iron Co.	Morley	Bituminous	71.6	337	114,605	1800
Toller	Colorado Fuel & Iron Co.	Tollerburg	Bituminous	60	25	2,415	1800
Delagua	Victor-American Fuel Co.	Delagua	Bituminous	132.1	346	196,204	1800
Brodhead No. 9	Temple Fuel Co.	Brodhead	Bituminous	143	205	90,110	700
Kenneth	Vickers Coal Co.	Rugby	Bituminous	159	84	60,791	500
Boncarbo	American Smelting & Ref. Co.	Cokedale	Bituminous	76	117	58,183	1200
Ludlow	Huerfano Coal Co.	Ludlow	Bituminous	124.4	108	51,750	600
Empire	Empire Coal Co.	Agular	Bituminous	61.2	53	30,205	600
Bear Canon No. 6	Bear Canon Coal Co.	Vallero	Bituminous	75.2	79	27,947	1000
Creston	Jewell Collieries Corp.	Agular	Bituminous	104	45	18,614	250
Dix	Dick Coal Co.	Dicks	Bituminous	128.7	22	17,657	300
Sopris No. 1	Deldosso Coal Co.	Sopris	Bituminous	120	32	14,397	300
Engle	Deldosso Coal Co.	Sopris	Bituminous	149	4	2,527	300
Rapson	Pio Micheli	Rapson	Bituminous	121.5	29	14,111	150
Thor	Thor Fuel Co.	Trinidad	Bituminous	27.5	69	7,820	280
Eureka	Phoenix Fuel Co.	Trinidad	Bituminous	54	28	5,586	150
Jeffrey	Jeffrey Fuel Co.	Trinidad	Bituminous	306	5	4,265	35
Bowen	Home Fuel & Supply Co.	Trinidad	Bituminous	175	5	2,948	15
Baldy	Baldy Coal Co.	Trinidad	Bituminous	233	3	1,770	7
Daisy	Daisy Coal Co.	Agular	Bituminous	237	5	1,665	10
La Belle	Wm. Morgan	Trinidad	Bituminous	162	6	1,546	10
Frisco	Frisco Coal Co.	Trinidad	Bituminous	249	3	1,493	8
Boshoar	A. T. Tucker	Trinidad	Bituminous	247	4	1,467	8
Forbes	W. E. Riggs	Trinidad	Bituminous	301	3	1,451	8
Santa Fe	Santa Fe Coal Co.	Trinidad	Bituminous	110.5	3	1,288	10
Pritchard	Chas. Pritchard	Trinidad	Bituminous	112	2	740	10

LAS ANIMAS COUNTY—Continued

Gen.	Agular.	Bituminous	120	4	656	25
Fishers Peak	Trinidad	Bituminous	143	1	636	3
Lakeview	Trinidad	Bituminous	125	2	519	
Star	Agular	Bituminous	139	2	501	
Blue Blaze	Trinidad	Bituminous	139	2	460	5
Jackson	Trinidad	Bituminous	180	2	360	
Flag	Trinidad	Bituminous	175	3	332	10
Pickford	Trinidad	Bituminous	108	3	332	
Boaglio Coal Co.	Trinidad	Bituminous	159	3	307	
Ferrill	Trinidad	Bituminous	200	1	305	
John Hollingsworth	Cokedale	Bituminous	74	2	282	
R. Martinez	Sopris	Bituminous	102	2	280	
Valley	Cokedale	Bituminous	44	4	207	
Wiley	Trinidad	Bituminous	115	2	150	5
Timber Canon	Trinidad	Bituminous	50	2	129	5
Hill Top	Sopris	Bituminous	32	1	115	
Motarano	Trinidad	Bituminous	100	1	80	3
Ideal Coal Trading Co.	Dicks	Bituminous	50	1	75	2
Guillermo Bowman	Weston	Bituminous	13	2	35	3
A. C. Storz	Valdez	Bituminous	12	1	15	
Vigil	Cokedale	Bituminous	98.6	2033	858.537	
M. Jimenez						
Ruby						
Number	of Mines operated :	47				

MESA COUNTY

Cameo.....	McNeil Coal Corp.....	Cameo.....	Semi-bituminous.....	57	45	26,701	600
Mt. Garfield.....	B. Gearhart.....	Pallsade.....	Semi-bituminous.....	264	9	7,184	
Garfield.....	Garfield Coal Co.....	Pallsade.....	Semi-bituminous.....	144	10	6,340	100
Pallsade.....	Pallsade Clean Heat Coal Co.....	Pallsade.....	Semi-bituminous.....	189	10	6,335	
P. V.....	Kovak & Skoda.....	Cameo.....	Semi-bituminous.....	160.7	3	2,673	25
Stove Canon.....	Stove Canon Mine Co.....	Fruita.....	Semi-bituminous.....	163	4	2,458	40
McGinley.....	Wm. McGinley.....	Grand Junction.....	Bituminous.....	237	2	2,175	10
Stokes.....	W. D. Stokes.....	Pallsade.....	Semi-bituminous.....	144	4	2,043	80
Riverside.....	Riverside Coal Co.....	Pallsade.....	Semi-bituminous.....	182	5	1,846	
Winger.....	Clark Coal Co.....	Pallsade.....	Semi-bituminous.....	91	3	1,809	30

TABLE D—1932—Continued.
MESA COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Midwest.....	Midwest Red Arrow Co.....	Palisade.....	Semi-bituminous.....	187	6	1,803	.....
Hidden Treasure.....	Hidden Treasure Coal Co.....	Fruita.....	Bituminous.....	117	3	1,442	40
Williams.....	Williams Coal Co.....	Grand Junction.....	Semi-bituminous.....	133	3	1,251	.....
Anchor No. 2.....	Anchor Coal Leasing Co.....	Grand Junction.....	Bituminous.....	132	3	823	30
Farmers Mutual.....	Farmers Mutual Coal Co.....	Grand Junction.....	Bituminous.....	204	3	762	25
Peacock.....	Peacock Coal Co.....	Grand Junction.....	Bituminous.....	230	3	709	4
Mt. Lincoln.....	Mt. Lincoln Coal Co.....	Palisade.....	Semi-bituminous.....	134	2	514	5
Hunter.....	W. W. Gray.....	Fruita.....	Semi-bituminous.....	151	2	511	10
Corcoran.....	Carnahan & Phillips.....	Grand Junction.....	Semi-bituminous.....	101	2	486	.....
Coal Gulch.....	Coal Gulch Coal Co.....	Loma.....	Semi-bituminous.....	203	1	475	10
Grasso.....	Nuncio Grasso.....	Grand Junction.....	Bituminous.....	105	2	473	10
Liberty (Nearing).....	George McMillin.....	Fruita.....	Bituminous.....	98	2	463	.....
Big Tree.....	Ralph Talarico.....	Grand Junction.....	Bituminous.....	120	2	360	25
Thomas.....	Thomas Coal Co.....	Grand Junction.....	Bituminous.....	90	3	275	5
Mundell.....	J. W. Mundell.....	Grand Junction.....	Bituminous.....	200	2	220	.....
Crescent.....	W. F. Jarvis.....	Grand Junction.....	Bituminous.....	60	3	174	.....
Waldron.....	Panther Coal Co.....	Palisade.....	Semi-bituminous.....	25	3	25	50
Number	of Mines operated: 27.....			125.1	139	70,330	
MOFFAT COUNTY							
Collom.....	Ute Coal Co.....	Axial.....	Bituminous.....	118	2	1,577	.....
Hart.....	Thomas Green.....	Craig.....	Bituminous.....	108	2	839	40
Shaver.....	Phelan & Shaver.....	Axial.....	Bituminous.....	67	2	404	20
Whitlock.....	E. E. Whitlock.....	Hamilton.....	Bituminous.....	60	2	210	.....
Wisconsin.....	Wisconsin Coal Co.....	Lay.....	Bituminous.....	90	2	150	1
Shelton.....	H. D. Shelton.....	Price Creek.....	Bituminous.....	25	1	35	.....
Number	of Mines operated: 6.....			82.8	11	3,215	

MONTEZUMA COUNTY

School Section Lease.....	Mancos Coal & Fuel Co.....	Mancos.....	Bituminous.....	146	3	896	20
Spencer.....	Geo. S. Spencer.....	Mancos.....	Bituminous.....	184	2	798	.....
Pinos Altos.....	Answorth & Lewis.....	Mancos.....	Bituminous.....	195	3	679	.....
Dolores.....	Frank Sagrillo.....	Dolores.....	Bituminous.....	200	2	671	6
Mancos Hill.....	Mancos Hill Coal Co.....	Mancos.....	Bituminous.....	99	4	623	15
Cortez.....	A. F. Hopper.....	Cortez.....	Bituminous.....	107	1	593	.....
Willden.....	Willden Coal Co.....	Mancos.....	Bituminous.....	90	2	243	.....
Gantz.....	David Gantz.....	Todd.....	Bituminous.....	106	2	194	.....
Superior.....	Ed McCargish.....	Lewis.....	Bituminous.....	150	1	114	.....
Black Ace.....	Geo. Stakish.....	Lewis.....	Bituminous.....	37	2	105	.....
Bud Ince.....	Bud Ince.....	Lebanon.....	Semi-bituminous.....	40	2	80	.....
Braden.....	Olney Braden.....	Dolores.....	Bituminous.....	50	2	42	.....
Glover.....	W. R. Glover.....	Dolores.....	Bituminous.....	16	1	10	.....
Number	of Mines operated: 13.....			115	27	5,048	

MONTROSE COUNTY

Liberty Bell.....	King & Mitchell.....	Nucila.....	Bituminous.....	280	1	921	6
Independant.....	Wm. J. Oberding.....	Nucila.....	Bituminous.....	160	1	203	.....
Pleasant Valley.....	Chas. Rice.....	Nucila.....	Sub-bituminous.....	65	1	90	.....
Rice.....	Arthur Rice.....	Nucila.....	Sub-bituminous.....	30	1	40	.....
Meek.....	Crystal Creek Coal Co.....	Maher.....	Sub-bituminous.....	60	1	25	.....
Number	of Mines operated: 5.....			79	5	1,279	

OURAY COUNTY

Bright Diamond.....	E. G. Slagle.....	Ridgway.....	Sub-bituminous.....	155	2	410	.....
Kennedy.....	H. A. Kennedy.....	Ridgway.....	Sub-bituminous.....	150	2	338	.....
Burro Creek.....	Lowery Spence.....	Ridgway.....	Sub-bituminous.....	130	1	315	.....
Colona.....	Frank Anderson.....	Montrose.....	Sub-bituminous.....	18	1	70	4
Number	of Mines operated: 4.....			126.3	6	1,133	

TABLE D—1932—Continued.

PARK COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
American (King) Number	Dunkle & Johnson of Mines operated: 1	Como	Bituminous	180 180	3 3	300 300	..........

PITKIN COUNTY

Placita Number	Placita Mine Leasing Co. of Mines operated: 1	Placita	Bituminous	85 85	9 9	1,852 1,852
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RIO BLANCO COUNTY

Pollard McKee New Pollard Reinart Lion Canon Johnny Boy Nine Mile Hill Fairfield Sulphur Creek Douglas Creek Number	Electric Coal Co. Electric Coal Co. C. F. Pollard R. C. Reinart Hart & Son Hart & Son Thos. D. Foreman C. F. Fairfield Claude Boyd Jones & Trachta of Mines operated: 10	Meeker Meeker Meeker Meeker Meeker Meeker Meeker Meeker Meeker Rangely	Bituminous Bituminous Bituminous Bituminous Bituminous Bituminous Bituminous Bituminous Bituminous Bituminous	237 46 258.5 233 155 46 106 110 65 10 137.5	3 1 2 1 2 2 1 2 1 1 16	2,144 119 2,085 747 671 184 635 505 161 32 7,278	50 10 10 5 6 3 10
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ROUTT COUNTY

Moffat No. 1 and 2	Moffat Coal Co.	Oak Creek	Bituminous	75.5	144	124,825	4000
Harris	Colorado & Utah Coal Co.	Mt. Harris	Bituminous	53.8	133	101,824	4000
Hayden	Hayden Coal Co.	Haybro	Bituminous	67.3	112	90,083	1500
Pinnacle	Victor-American Fuel Co.	Oak Creek	Bituminous	63.8	114	73,682	1500
Wadge	Victor-American Fuel Co.	Mt. Harris	Bituminous	24.9	34	20,702	1000
Bear River	Bear River Coal Co.	Bear River	Bituminous	74	66	45,411	1000
Keystone	Keystone Coal Co.	Routt	Bituminous	60.1	69	39,184	1000
P. K. No. 1	Pinnacle-Kemmerer Fuel Co.	Mt. Harris	Bituminous	87.8	63	31,991	600
McNell	McNell Coal Corporation	McGregor	Bituminous	115.5	51	27,946	250
Argo Gulch	Geo. T. Rolfe	Oak Creek	Bituminous	195	6	6,209	40
Seven Points	Western Hard Coal Co.	Phippsburg	Bituminous	103	16	2,757	.....
Babson	Babson Coal Co.	Hayden	Bituminous	144	3	1,550	40
Butcher Knife	Ritter & McShane	Steamboat Springs	Bituminous	77	2	1,363	30
Hayden Valley	Hayden Valley M. Coal Co.	Hayden	Bituminous	148	3	1,199	15
Morgan	John Pollo	Steamboat Springs	Bituminous	190	2	1,136	10
Ritchneg	Little Pinnacle Coal Co.	Bear River	Bituminous	137	2	1,108	10
Black Cat	Black Cat Coal Co.	Bear River	Bituminous	96	5	596	20
Block	E. H. Zimmerman	Steamboat Springs	Bituminous	105	2	582	50
Amos	Amos Coal Co.	McGregor	Bituminous	185	1	423	50
Premium	Fruth & Micheletti	Milner	Bituminous	61	1	380	30
Clark Gulch	Clark Coal Co.	Milner	Bituminous	168	3	364	8
Jones	Jones Coal Co.	Bear River	Bituminous	110	1	361	15
Fish Creek	Kaspar Webberkirch	Hayden	Bituminous	43	1	160	.....
Chergo	Torn Chergo	Oak Creek	Bituminous	71	1	130	10
Scott	J. E. Webber	Pagoda	Bituminous	38	1	128	.....
Apex	Geo. Steel & Co.	Oak Creek	Bituminous	41	1	125	5
Edna	Edna Coal Co.	Oak Creek	Bituminous	20	1	34	.....
Number	of Mines operated : 27			72.4	838	574,253	.....

SAN MIGUEL COUNTY

Gray	L. J. Gray	Norwood	Sub-bituminous	290	1	324	.....
Horton	Horton Coal Co.	Norwood	Sub-bituminous	110	1	264	.....
Marriott	Wm. Marriott	Norwood	Sub-bituminous	90	3	161	.....
Galloway	Louis Vee	Norwood	Sub-bituminous	45	2	50	.....
Elder	Elder Coal Co.	Norwood	Sub-bituminous	50	1	33	.....
Number	of Mines operated: 5			90	8	832	.....

TABLE D—1932—Continued.

WELD COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Columbine.....	Rocky Mountain Fuel Co.....	Serene.....	Sub-bituminous.....	237.9	213	278,678	1600
Grant.....	Rocky Mountain Fuel Co.....	Frederick.....	Sub-bituminous.....	150.6	120	95,134	1000
Clayton.....	Clayton Coal Co.....	Erie.....	Sub-bituminous.....	166	195	151,585	2000
Morrison.....	Clayton Coal Co.....	Erie.....	Sub-bituminous.....	128	93	82,825	1500
Boulder Valley.....	Boulder Valley Co.....	Erie.....	Sub-bituminous.....	161	120	207,515	2000
Imperial.....	Imperial Coal Co.....	Erie.....	Sub-bituminous.....	153	141	123,747	1500
Puritan.....	National Fuel Co.....	Frederick.....	Sub-bituminous.....	129.5	134	142,767	.....
Baum.....	Consolidated Coal & Coke Co.....	Dacono.....	Sub-bituminous.....	199	117	102,684	1000
Russell.....	W. E. Russell Coal Co.....	Frederick.....	Sub-bituminous.....	188	66	92,406	700
Sterling.....	McNeil Coal Corporation.....	Dacono.....	Sub-bituminous.....	154	72	77,630	1000
Shamrock.....	Shamrock Coal Co.....	Frederick.....	Sub-bituminous.....	107.5	86	62,925	800
Liley.....	Liley Coal & Land Co.....	Frederick.....	Sub-bituminous.....	203	39	38,479	350
Monroe.....	Monroe Coal Co.....	Lafayette.....	Sub-bituminous.....	118	23	6,631	50
White Ash.....	White Ash Coal Co.....	La Salle.....	Sub-bituminous.....	151	5	2,990	8
Buddy.....	Buddy Coal Co.....	La Salle.....	Sub-bituminous.....	110	8	2,378	50
Sunset.....	Sunset Fuel Co.....	La Salle.....	Sub-bituminous.....	98	9	864	.....
Pickett (Hill).....	L. W. Pickett.....	Briggsdale.....	Sub-bituminous.....	90	4	792	25
Number	of Mines operated: 17.....	.....	.....	166.1	1465	1,470,030	.....
Total Number	of Mines operated: 345.....	.....	.....	134.7	8786	5,616,525	.....

TABLE D—1933.

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1933 AND CAPACITY OF MINE PER DAY IN TONS.

ADAMS COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
Blue Ribbon	Blue Ribbon Coal Co.	Lafayette	Sub-bituminous	103	4	311	.....
Number	of Mines operated: 1			103	4	311	

ARAPAHOE COUNTY

Air Line	Deer Trail Coal Co.	Deer Trail	Sub-bituminous	50	2	180	10
Number	of Mines operated: 1			50	2	180	

ARCHULETA COUNTY

Cox	T. L. Cox	Pasoga Springs	Sub-bituminous	162	1	218	.....
Bellino	Antonito & Bellino	Pasoga Junction	Sub-bituminous	84	1	207	.....
Nossaman	W. T. Nossaman	Pasoga Springs	Sub-bituminous	120	1	164	.....
Hardman	H. L. Hardman	Dyke	Sub-bituminous	60	1	121	.....
McBroom	Chas. McBroom	Dyke	Sub-bituminous	10	1	47	.....
Number	of Mines operated: 5			87.2	5	757	

TABLE D—1933—Continued.

BOULDER COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Industrial.....	Rocky Mountain Fuel Co.	Superior.....	Sub-bituminous.....	151.7	191	93,609	800
Vulcan.....	Rocky Mountain Fuel Co.	Lafayette.....	Sub-bituminous.....	145.3	63	33,779	250
Standard.....	Rocky Mountain Fuel Co.	Lafayette.....	Sub-bituminous.....	35	47	7,028	300
Monarch No. 2.....	National Fuel Co.	Broomfield.....	Sub-bituminous.....	148.8	113	92,302	700
Hi-Way.....	Louisville-Lafayette Coal Co.	Louisville.....	Sub-bituminous.....	162	114	84,889	700
Black Diamond No. 2.....	Black Diamond Fuel Co.	Lafayette.....	Sub-bituminous.....	305	67	54,005	600
Crown.....	David Allan.....	Gorham.....	Sub-bituminous.....	210	76	53,117	500
Gorham.....	Domestic Coal Co.	Boulder.....	Sub-bituminous.....	207	14	8,184	100
Eldorado.....	Eldorado Coal Co.	Gorham.....	Sub-bituminous.....	187	8	5,888	60
Peerless.....	Peerless Coal Co.	Gorham.....	Sub-bituminous.....	228	7	5,907	75
Fireside.....	Ko-Z Coal Co.	Louisville.....	Sub-bituminous.....	298.5	9	5,478	.....
High View.....	High View Coal Co.	Gorham.....	Sub-bituminous.....	174	6	4,462	60
New Ross.....	Ross Coal Co.	Louisville.....	Sub-bituminous.....	231	6	3,869	.....
Pluto No. 2.....	Pluto Coal Co.	Superior.....	Sub-bituminous.....	183	8	3,503	50
Banner.....	Banner Coal Co.	Lafayette.....	Sub-bituminous.....	220	11	3,381	60
Arrow.....	Arrow Coal Co.	Superior.....	Sub-bituminous.....	135	7	2,445	60
Pittsburgh.....	Pittsburgh Coal Co.	Gorham.....	Sub-bituminous.....	158	3	1,161	20
Cactus.....	Cactus Coal Co.	Boulder.....	Sub-bituminous.....	271	2	996	20
Sunrise.....	Sunrise Coal Co.	Gorham.....	Sub-bituminous.....	4	4	900	.....
North Slope No. 6.....	Mann & Hunziker.....	Boulder.....	Sub-bituminous.....	158	3	847	.....
Paramount.....	Paramount Coal Co.	Lafayette.....	Sub-bituminous.....	52	4	517	7
Premiere.....	Clausen & Clarkson.....	Gorham.....	Sub-bituminous.....	120	3	322	8
Pine Cliff.....	Tri-State Coal Ass'n.....	Boulder.....	Sub-bituminous.....	90	4	255	10
Indino No. 2.....	J. D. Sloan.....	Gorham.....	Sub-bituminous.....	45	2	172	.....
Albion.....	Albion Coal Co.	Gorham.....	Sub-bituminous.....	30	4	76	.....
Number	of Mines operated: 25.....			168	776	467,091	

DELTA COUNTY

King.....	Juanita Coal & Coke Co.....	Bowie.....	Bituminous.....	55	34	22,828	1000
Green Valley.....	Green Valley Coal Co.....	Cedaredge.....	Semi-bituminous.....	292	5	4,997	40
Winton.....	Winton Coal Co.....	Austin.....	Sub-bituminous.....	251	3	3,583	75
Red Canon.....	Red Canon Coal Co.....	Cedaredge.....	Semi-bituminous.....	242	4	3,169	100
States.....	States Hall Coal Co.....	Cedaredge.....	Semi-bituminous.....	171.5	3	1,750	
Red Mountain.....	States Hall Coal Co.....	Cedaredge.....	Semi-bituminous.....	192	4	1,298	40
Paonia.....	Paonia Farmers Coal Co.....	Paonia.....	Semi-bituminous.....	95	2	1,667	30
Western Star.....	Western Star Coal Co.....	Cedaredge.....	Semi-bituminous.....	246	2	1,463	
Independent.....	Independent Coal Co.....	Cedaredge.....	Semi-bituminous.....	192	3	1,397	
Bennett.....	Bennett Coal Co.....	Hotchkiss.....	Sub-bituminous.....	209	2	865	12
Black Diamond.....	Black Diamond Coal Co.....	Cedaredge.....	Semi-bituminous.....	56	4	614	40
Gelwick.....	Gelwick Coal Co.....	Paonia.....	Semi-bituminous.....	79	2	527	20
Fitzsimmons.....	Hice Coal Co.....	Paonia.....	Semi-bituminous.....	89	2	527	5
Converse.....	Converse Coal Co.....	Paonia.....	Semi-bituminous.....	154	1	509	10
Rollins.....	Rollins Fuel Co.....	Delta.....	Semi-bituminous.....	785	1	427	
Vowell.....	Tex Vowell.....	Lazear.....	Sub-bituminous.....	80	2	150	10
Burdick.....	Foster Bros.....	Hotchkiss.....	Sub-bituminous.....	100	1	150	8
Number	of Mines operated: 17			115.1	75	45,921	

ELBERT COUNTY

Wright.....	Wright Barker.....	Matheson.....	Sub-bituminous.....	213	2	2,693	50
Mascot.....	Mascot Coal, Oil & Clay Co.....	Matheson.....	Sub-bituminous.....	118	2	1,088	
Fondis.....	Fondis Coal Co.....	Fondis.....	Sub-bituminous.....	125	1	237	30
McFarley.....	Joseph McFarley.....	Fondis.....	Sub-bituminous.....	180	1	160	2
Fireside.....	John Slama.....	Matheson.....	Sub-bituminous.....	17	3	23	10
Number	of Mines operated: 5			113.1	9	4,201	

TABLE D—1933—Continued.

EL PASO COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Pikeview.....	Pikes Peak Fuel Co.....	Colorado Springs.....	Sub-bituminous.....	201	161	206,710	1100
City Coal Mines.....	Colorado Springs Co.....	Colorado Springs.....	Sub-bituminous.....	273	60	38,856	400
Corley.....	Corley Coal Co.....	Colorado Springs.....	Sub-bituminous.....	276	31	23,859	300
Dixie.....	Corley Coal Co.....	Colorado Springs.....	Sub-bituminous.....	132	6	1,697	100
Jimmy Camp.....	Thomas Mining Co.....	Colorado Springs.....	Sub-bituminous.....	238	24	16,711	100
Altitude.....	Altitude Fuel Co.....	Colorado Springs.....	Sub-bituminous.....	277	19	8,048	.....
Climax.....	Danville Coal Co.....	Colorado Springs.....	Sub-bituminous.....	244	4	1,382	20
Busy Bee.....	Busy Bee Coal Co.....	Colorado Springs.....	Sub-bituminous.....	52	10	927	50
Drennan.....	Drennan Coal Co.....	Colorado Springs.....	Sub-bituminous.....	199	2	603	10
Kurie.....	Kurie Coal Co.....	Colorado Springs.....	Sub-bituminous.....	96	6	921	.....
Rush.....	Guy McPherson.....	Rush.....	Sub-bituminous.....	30	4	113	15
Number	of Mines operated: 11	.....	.....	230.8	327	299,827	.....

FREMONT COUNTY

Chandler.....	Victor-American Fuel Co.....	Chandler.....	Bituminous.....	142.3	269	103,923	1000
Rockvale No. 2.....	John D. Cribbs.....	Rockvale.....	Bituminous.....	162	44	22,661	350
Rockvale No. 3.....	Colorado Fuel & Iron Co.....	Canon City.....	Bituminous.....	291.6	44	49,663	400
Canon.....	Canon-Reliance Coal Co.....	Canon City.....	Bituminous.....	130	100	42,269	500
Canon Monarch.....	Canon-Monarch Coal Co.....	Florence.....	Bituminous.....	263	40	20,249	150
Caldriola.....	Caldriola Coal Co.....	Florence.....	Semi-bituminous.....	219	27	15,788	100
Cedar Canon.....	Giuliano & Carpine Coal Co.....	Florence.....	Bituminous.....	191	21	13,551	55
Fremont.....	Giuliano & Carpine Coal Co.....	Florence.....	Bituminous.....	146	36	9,067	55
Canon Black Diamond Coal Co.....	Canon Black Diamond Coal Co.....	Florence.....	Bituminous.....	163	28	9,848	150
Griffiths.....	Griffiths Coal Co.....	Canon City.....	Bituminous.....	217	14	8,361	75

FREMONT COUNTY—Continued

American Independent	American-Independent Coal Co.	Semi-bituminous	228.5	17	8,093	30
South Magnet	Canon Quality Coal Co.	Bituminous	150	22	7,472	50
Rochio	Rochio Coal Co.	Semi-bituminous	187	11	5,974	15
Ideal	Double Dick Coal Co.	Bituminous	250	15	5,759	100
Double Dick	Double Dick Coal Co.	Bituminous	28	30	1,233	100
Brookside	Orechio Coal M. Co.	Semi-bituminous	170.8	13	5,756	30
Bald	J. Bald Coal Co.	Bituminous	208	13	4,771	55
Willie No. 3	Sam Petry	Semi-bituminous	196	6	3,055	25
Fawn Hollow	Fawn Hollow Coal Co.	Bituminous	147	7	2,807	.....
Bluff Springs	Bluff Springs Leasing Co.	Bituminous	55	10	2,257	.....
Canon Imperial	Canon Imperial Coal Co.	Bituminous	162	7	1,682	10
Katting	Florence Coal Co.	Bituminous	190	4	1,385	.....
Newlan Creek	Perino Coal Co.	Bituminous	132	6	1,200	20
Canon Liberty	Canon Liberty Coal Co.	Bituminous	158	5	1,193	20
Royal Gorge	Royal Gorge Coal Co.	Bituminous	100	11	1,046	35
Peacock	Ranson Coal Co.	Bituminous	119	3	1,093	.....
Willie No. 1	Paul Carstilo	Bituminous	147	1	450	3
Willie No. 2	James Brothers	Bituminous	150	2	450	3
Brewster No. 2	Brewster Coal Co.	Semi-bituminous	265	2	421	.....
Rockley	Moschetti Coal Co.	Bituminous	60	7	361	6
Canon District No. 2	Canon City Superior Coal Co.	Bituminous	14	10	270	.....
Bassick	Bassick Coal Co.	Bituminous	38	3	156	25
Cuckoo No. 3	Cuckoo Coal Co.	Bituminous	154	2	150	1
Digitacomo	Digitacomo Coal Co.	Bituminous	80	3	100	4
Sunshine	Lloyd & Cappella Coal Co.	Bituminous	40	2	79	4
Number	of Mines operated: 35		159.6	835	352,593	

GARFIELD COUNTY

New Castle.....	W. G. McDonald.....	Glenwood Springs.....	Bituminous.....	258.....	12.....	8,473.....	100.....
Carbonera.....	Gilson Asphaltum Co.....	Mack.....	Bituminous.....	164.5.....	8.....	6,923.....	50.....
North Midland.....	J. Q. McNatt.....	Glenwood Springs.....	Bituminous.....	203.....	6.....	3,124.....	30.....
South Canon No. 1.....	South Canon Mine Leasing Co.....	Glenwood Springs.....	Bituminous.....	25.....	10.....	1,699.....	15.....
South Canon No. 2.....	South Canon Mine Leasing Co.....	Glenwood Springs.....	Bituminous.....	122.....	4.....	742.....	---
Harvey Gap.....	James Le Donne.....	New Castle.....	Bituminous.....	179.....	3.....	1,108.....	7.....
Ziesenss.....	Henry Ziesenss.....	Rifle.....	Bituminous.....	111.....	2.....	899.....	20.....

TABLE D—1933—Continued.
GARFIELD COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
Earnest.....	J. F. Swiglow.....	Glenwood Springs.....	Bituminous.....	102	3	892	6
North Canon.....	Rifle Coal Mines, Inc.....	Rifle.....	Bituminous.....	180	2	878	8
Rauman.....	Rauman.....	Rifle.....	Bituminous.....	224	3	860	7
Silt.....	Llewellyn.....	Silt.....	Bituminous.....	105	2	672	5
Ohkraut.....	Frank Deboy.....	Glenwood Springs.....	Bituminous.....	117	1	614	.....
Diamond.....	Diamond Fuel Co.....	Glenwood Springs.....	Bituminous.....	295	2	399	.....
Estes.....	Estes.....	Rifle.....	Bituminous.....	90	2	195	.....
Paradise.....	Angelo Bellodi.....	Glenwood Springs.....	Bituminous.....	128	1	186	.....
Keystone.....	Church & Schlegel.....	New Castle.....	Bituminous.....	100	2	123	.....
Number	of Mines operated: 16.....	.....	.....	156.9	63	27,787	.....

GUNNISON COUNTY							
Crested Butte.....	Colorado Fuel & Iron Co.....	Crested Butte.....	Bituminous.....	127.4	207	152,570	1200
Somerset.....	Calumet Fuel Co.....	Somerset.....	Bituminous.....	115.7	98	115,680	1500
Oliver.....	Oliver Coal Co.....	Somerset.....	Semi-anthracite.....	143.5	54	49,528	500
Alpine.....	Rocky Mountain Fuel Co.....	Baldwin.....	Semi-bituminous.....	118	60	34,234	350
Bulkeley No. 2.....	Crested Butte Coal Co.....	Crested Butte.....	Bituminous.....	193	28	30,093	150
Horace.....	Peter J. Diel.....	Crested Butte.....	Anthracite.....	90.5	60	10,539	250
Bear.....	Tony Bear.....	Somerset.....	Bituminous.....	185	6	4,976	.....
Hawks Nest.....	Clement Andin.....	Somerset.....	Bituminous.....	170	3	2,218	13
Richardson.....	Richardson Coal Co.....	Gunnison.....	Anthracite.....	175	4	1,894	35
Castle Rock.....	Castle Rock Coal Co.....	Gunnison.....	Semi-bituminous.....	211	2	1,236	20

GUNNISON COUNTY--Continued

	Number	of Mines operated: 14	Gunnison.....	Bituminous.....	114	4	1,163
Ohio Creek.....			Gunnison.....	Bituminous.....	203	2	726
Carbon Creek.....			Gunnison.....	Bituminous.....	112	2	416
Hinkle.....			Baldwin.....	Semi-bituminous.....	120	2	400
Baldwin Star.....					115.7	532	405,673

HUERFANO COUNTY

Robinson No. 4.....	Colorado Fuel & Iron Co.	Farr.....	Bituminous.....	196	239	204,444	1000
Kebler No. 2.....	Colorado Fuel & Iron Co.	Tiora.....	Bituminous.....	125	140	74,094	850
Alamo No. 1.....	Alamo Coal Co.	Alamo.....	Bituminous.....	196	52	28,449	1000
Alamo No. 2.....	Barbour Coal Co.	Alamo.....	Bituminous.....	140.7	80	53,263	1000
Calumet No. 1.....	Calumet Fuel Co.	Delcarbon.....	Bituminous.....	77.7	86	34,873	500
Calumet No. 2.....	Calumet Fuel Co.	Delcarbon.....	Bituminous.....	6	73	1,518	.....
Gordon.....	Gordon Coal Co.	Gordon.....	Bituminous.....	194	54	36,263	400
Pryor.....	Pryor Coal M. Co.	Pryor.....	Bituminous.....	74.2	78	27,457	500
Ravenwood.....	Callente Coal Co.	Ravenwood.....	Bituminous.....	102	78	26,164	400
Maitland.....	Callente Coal Co.	Ravenwood.....	Bituminous.....	73	31	12,731	300
Vesta.....	Minnequa Fuel Co.	Walsenburg.....	Bituminous.....	149	28	17,612	300
Ojo Canon.....	Peachey Coal Co.	La Veta.....	Bituminous.....	225	38	16,285	100
C. O. D. No. 1.....	Peachey Coal Co.	La Veta.....	Bituminous.....	85	5	1,060	10
C. O. D. No. 2.....	Peachey Coal Co.	La Veta.....	Bituminous.....	40	3	159	4
Spanish Peak.....	W. A. Ream Coal Co.	Tiora.....	Bituminous.....	165	27	10,826	200
Toltec.....	Aztec Coal M. Co.	Toltec.....	Bituminous.....	77	35	10,216	150
Black Hawk.....	Black Hawk Coal Co.	Walsenburg.....	Bituminous.....	173	9	4,516	.....
Torrid.....	Torrid Coal Co.	Aguilar.....	Bituminous.....	152	7	4,474	40
Leader No. 1.....	Leader Coal Co.	Walsenburg.....	Bituminous.....	113	5	1,399	.....
Leader No. 2.....	Red Ash Coal Co.	Walsenburg.....	Bituminous.....	108	4	3,112	.....
Major.....	Major Coal Co.	Walsenburg.....	Bituminous.....	87	14	3,177	75
Bunker Hill No. 1.....	Steve Mattivi & Sons	Rapson.....	Bituminous.....	120	7	1,600	20
Bunker Hill No. 2.....	Sowers Coal Co.	Walsenburg.....	Bituminous.....	96	8	1,104	15
George No. 2.....	Sam George & Sons	La Veta.....	Bituminous.....	247	7	1,425	.....
Caddell No. 1.....	P. & T. Coal Co.	Walsenburg.....	Bituminous.....	139	3	1,055	.....

TABLE D—1933—Continued.
HUERFANO COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Caddell No. 3..... Strawberry..... Round Oak..... Murrell..... Spring Canon..... Round Cap.....	Caddell Coal Co..... Strawberry Coal Co..... Giordino Coal Co..... James Murrell..... Prosperity Coal Co..... Bartuelo & Berte Coal Co.....	Walsenburg..... Toltec..... Walsenburg..... La Veta..... Walsenburg..... Walsenburg.....	Bituminous..... Bituminous..... Bituminous..... Bituminous..... Bituminous..... Bituminous.....	158..... 150..... 250..... 220..... 230..... 60.....	6..... 3..... 2..... 3..... 2..... 2.....	1,017..... 800..... 785..... 667..... 373..... 140.....	10..... 15..... 3..... 3..... 15..... 3.....
Number	of Mines operated: 31.....			139.....	1129.....	581,058.....	
JACKSON COUNTY							
Moore No. 1 & Moore Strip Pit..... Marr..... Conrad.....	North Park Coal..... Geo. M. Barnell..... Geo. M. Barnell.....	Coalmont..... Walden..... Walden.....	Sub-bituminous..... Sub-bituminous..... Sub-bituminous.....	183..... 132..... 28.....	26..... 4..... 1.....	26,105..... 1,839..... 63.....	700..... 50.....
Number	of Mines operated: 3.....			171.4.....	31.....	28,007.....	
JEFFERSON COUNTY							
Leyden No. 3..... Unity..... Littleton Valley..... Virginia..... Van Winkle..... Denney..... Blue Bird No. 2.....	Leyden Lignite Co..... Unity Coal Co..... Littleton Valley Coal Co..... Jefferson Coal Co..... Van Winkle Coal Co..... Denney Mining Co..... L. H. Benster.....	Leyden..... Littleton..... Littleton..... Littleton..... Golden..... Golden..... Morrison.....	Sub-bituminous..... Sub-bituminous..... Sub-bituminous..... Sub-bituminous..... Sub-bituminous..... Sub-bituminous..... Sub-bituminous.....	237..... 295..... 237..... 124..... 120..... 90..... 60.....	98..... 23..... 22..... 11..... 11..... 4..... 4.....	121,260..... 11,135..... 7,067..... 2,294..... 832..... 380..... 75.....	750..... 40..... 50..... 30..... 11..... 3.....
Number	of Mines operated: 7.....			222.7.....	173.....	143,043.....	

LA PLATA COUNTY

Locality	Number	of Mines operated	22
Castle	7,392	11	264
O. K.	3,208	10	76
Sunshine	2,421	3	164
Morning Star	1,831	6	71
Triangle	1,636	2	130
Black Diamond	1,508	3	116
Durango	1,038	4	235
Hunt	1,017	2	168
Superior	946	3	185
Valley View	977	2	178
Peerless	834	2	91
Soda Springs	776	2	162
Fire Glow	746	3	200
Hay Gulch	650	1	106
Shamrock	648	2	160.5
Fort Lewis	446	1	150
Tipotsch	382	1	104
Morning Glory	381	1	104
Excelsior	331	1	120
Ellidge	186	2	130
Pine River	136	1	75
Hammond	103	1	42
	27,593	64	152.7

LARAMIE COUNTY

Hackman No. 1				
Benson.....	Hackman Coal Co.	Cheyenne, Wyo.	Sub-bituminous	221
Ayshire.....	Lowe Coal Co.	Carr.	Sub-bituminous	188
Pioneer.....	Ayshire Coal Co.	Carr.	Sub-bituminous	99
White Rose.....	Walter Overcamp	Carr.	Sub-bituminous	175
	White Rose Coal Co.	Carr.	Sub-bituminous	90
Bachy.....	Bachly Coal Co.	Carr.	Sub-bituminous	60
Number	of Mines operated:	6	158.1	18
			5,310	

TABLE D—1933—Continued.

LAS ANIMAS COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Frederick.....	Colorado Fuel & Iron Co.	Valdez.....	Bituminous.....	149.....	241.....	190,747.....	2400.....
Morley.....	Colorado Fuel & Iron Co.	Morley.....	Bituminous.....	64.7.....	268.....	88,488.....	1800.....
Delagua.....	Victor-American Fuel Co.	Delagua.....	Bituminous.....	121.5.....	338.....	172,917.....	1800.....
Boncarbo.....	American Smelting & Ref. Co.	Cokedale.....	Bituminous.....	103.....	107.....	84,889.....	1200.....
Broadhead No. 9.....	Temple Fuel Co.	Broadhead.....	Bituminous.....	170.5.....	135.....	67,206.....	500.....
Kenneth.....	Vickers Coal Co.	Rugby.....	Bituminous.....	160.....	87.....	58,007.....	500.....
Ludlow.....	Huerfano Coal Co.	Ludlow.....	Bituminous.....	103.4.....	142.....	50,047.....	600.....
Creston.....	Jewell Collieries Corp.	Aguliar.....	Bituminous.....	174.....	40.....	26,983.....	150.....
Empire.....	Empire Coal M. Co.	Aguliar.....	Bituminous.....	49.8.....	51.....	21,171.....	600.....
Dix.....	Dick Coal Co.	Dicks.....	Bituminous.....	79.....	24.....	15,238.....	300.....
Rapson.....	Michell.....	Rapson.....	Bituminous.....	168.....	27.....	12,056.....	200.....
Sopris No. 1.....	Deldosso Coal Co.	Sopris.....	Bituminous.....	115.5.....	22.....	10,145.....	65.....
Engle.....	Deldosso Coal Co.	Trinidad.....	Bituminous.....	114.....	5.....	2,756.....	33.....
Bear Canon No. 6.....	Bear Canon Coal Co.	Valloroso.....	Bituminous.....	50.....	32.....	8,835.....	1000.....
Thor.....	Thor Fuel Co.	Trinidad.....	Bituminous.....	29.8.....	36.....	6,810.....	280.....
Eureka.....	Phoenix Fuel Co.	Dicks.....	Bituminous.....	65.....	43.....	6,613.....	150.....
Niggerhead.....	Niggerhead Mining Co.	Aguliar.....	Bituminous.....	112.5.....	21.....	6,613.....	120.....
Jeffries.....	Jeffries Fuel Co.	Trinidad.....	Bituminous.....	313.....	9.....	6,024.....	40.....
Bowen.....	Home Fuel & Supply Co.	Trinidad.....	Bituminous.....	146.....	5.....	2,616.....	25.....
Gem.....	Gem Coal Co.	Aguliar.....	Bituminous.....	229.....	6.....	2,314.....	15.....
Frisco.....	Frisko Coal Co.	Trinidad.....	Bituminous.....	170.....	5.....	2,289.....	.....
Forbes No. 9.....	W. E. Riggs.....	Trinidad.....	Bituminous.....	237.....	5.....	2,138.....	10.....
Daisy.....	Daisy Coal Co.	Aguliar.....	Bituminous.....	173.....	3.....	1,524.....	6.....
Liberty.....	Liberty Coal Co.	Aguliar.....	Bituminous.....	200.....	3.....	1,243.....	6.....
Baldy.....	Baldy Coal Co.	Trinidad.....	Bituminous.....	185.....	2.....	1,130.....	8.....
Santa Fe.....	Santa Fe Coal Co.	Trinidad.....	Bituminous.....	79.....	4.....	985.....	10.....
Crystal.....	Guillermo Bowman.....	Dicks.....	Bituminous.....	100.....	2.....	826.....	6.....
Lakeview.....	Nick Riggle.....	Trinidad.....	Bituminous.....	160.....	2.....	632.....	15.....

LAS ANIMAS COUNTY—Continued

No.	Name	Locality	Product	Tons	Value
1	Pickford	M. Boaglio	Trinidad	150	600
2	Red Ash	W. H. Owens	Trinidad	120	608
3	Flag	Joe Roggero	Trinidad	175	458
4	Bagley	Ideal Coal Co.	Trinidad	70	380
5	Martorano	Martorano & Son	Trinidad	146	342
6	Buena	Jose Y. Buena	Trinidad	150	365
7	Joerger	Lilyard Coal Co.	Trinidad	120	350
8	Garcia	Benito Garcia	Trinidad	90	300
9	Martinez	Ralph Martinez	Trinidad	183	263
10	Valley	Valley Coal Co.	Sopris	100	261
11	Pritchard	Trinidad Supply Coal Co.	Trinidad	53	245
12	Fishers Peak	Fishers Peak Coal Co.	Trinidad	111	242
13	Tucker	A. D. Tucker	Trinidad	75	261
14	Star	Eugene West	Rapson	75	226
15	Wiley	O. C. Cook	Trinidad	82	181
16	Jackson	Standard Coal Co.	Trinidad	75	152
17	Hill Top	Hill Top Coal Co.	Trinidad	200	162
18	La Belle	Wm. Morgan	Trinidad	15	120
19	Hernandez	J. D. Hernandez	Weston	90	152
20	Chay	Louis Chay	Valdez	90	100
21	Stonewall	Arrowhead Coal Co.	Weston	50	99
22	Salvador	Salvador Coal Co.	Cokedale	42	89
23	Canon	Sarcillo Campon Coal Co.	Trinidad	11	42
24	Sanchez	Demente Sanchez	Boncarbo	26	50
				114.7	857.290
				1712	

MESA COUNTY

Cameo.....	Cameo.....	Semi-bituminous.....	95.5	45	31,592	600
Mt. Garfield.....	B Gearhart.....	Palisade.....	274	8	7,849	75
Garfield.....	Palisade Coal Co.....	Semi-bituminous.....	167	8	4,772	-----
Palisade.....	Palisade Clean Heat Coal Co.....	Semi-bituminous.....	140	10	4,707	100
Stove Canon.....	Stove Canon Coal Co.....	Bituminous.....	162.8	4	2,836	40
P. V.....	Kovak & Skoda.....	Bituminous.....	160	2	2,172	18
Winger.....	Clarke Coal Co.....	Bituminous.....	145	4	2,135	30

TABLE D--1933--Continued.
MESA COUNTY--Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num-ber of Tons Produced	Capacity of Mine per Day, Tons
Hidden Treasure Stokes.....	Hidden Treasure Coal Co.	Fruita.....	Bituminous.....	106	5	2,121	40
McGinley.....	W. D. Stokes.....	Palisade.....	Semi-bituminous.....	117	4	1,770	80
	William McGinley.....	Grand Junction.....	Bituminous.....	202	2	1,699	30
Riverside.....	Riverside Coal Co.	Palisade.....	Semi-bituminous.....	153	6	1,692	.....
Farmers No. 1.....	Farmers-Mutual Coal Co.	Grand Junction.....	Bituminous.....	177.2	4	1,587	30
Midwest.....	Midwest Red Arrow Coal Co.	Palisade.....	Bituminous.....	190	5	1,531	30
Williams.....	Williams Coal Co.	Grand Junction.....	Bituminous.....	160	3	1,420	.....
Thomas.....	Thomas Coal Co.	Grand Junction.....	Bituminous.....	106	4	1,182	15
Blue Flame Hunter.....	Blue Flame Coal Co.	Palisade.....	Semi-bituminous.....	210	2	1,500	20
Anchor No. 1.....	J. B. Hunter.....	Fruita.....	Semi-bituminous.....	199	2	887	10
Peacock.....	Anchor Coal Co.	Grand Junction.....	Bituminous.....	131	3	878	20
Monger.....	Peacock Coal Co.	Grand Junction.....	Bituminous.....	110	3	801	.....
	Hiatt Coal Co.	Fruita.....	Semi-bituminous.....	122	2	922	.....
Mundell.....	J. W. Mundell.....	Grand Junction.....	Bituminous.....	250	3	780	.....
Coal Gulch.....	Coal Gulch Coal Co.	Loma.....	Semi-bituminous.....	104	2	549	10
Marinelli.....	Marinelli Bros.	Fruita.....	Bituminous.....	200	2	348	6
Nearing.....	Mesa County Quality Coal Co.	Fruita.....	Bituminous.....	107	2	294	.....
Grasso.....	Nunzio Grasso.....	Grand Junction.....	Bituminous.....	64	2	294	.....
Corcoran.....	W. M. Cregar.....	Grand Junction.....	Bituminous.....	117	3	279	.....
Ullice.....	Ullice Coal Ass'n.	Loma.....	Bituminous.....	30	2	153	10
Mt. Lincoln.....	Mt. Lincoln Coal Co.	Palisade.....	Semi-bituminous.....	16	3	90	.....
Big Tree.....	Big Tree Coal Co.	Grand Junction.....	Bituminous.....	25	2	85	.....
Number	of Mines operated: 29			132.7	147	76,925	

MOFFAT COUNTY

Knez.....	Knez Coal Co.....	Craig.....	Bituminous.....	195	2
Collom.....	Partison Coal & Oil Co.....	Axial.....	Bituminous.....	210	1
Shaver.....	Phelan & Shaver.....	Axial.....	Bituminous.....	80	2
Blair.....	Blair Coal Co.....	Craig.....	Bituminous.....	100	2
Hart.....	Thomas Green.....	Craig.....	Bituminous.....	107	1
Community.....	Frank Close.....	Craig.....	Bituminous.....	148	1
Wisconsin.....	Wisconsin Coal Co.....	Lay.....	Bituminous.....	100	1
Little Bear.....	Little Bear Coal Co.....	Craig.....	Bituminous.....	90	1
Sadvar.....	Mathew Sadvar.....	Craig.....	Bituminous.....	150	1
Whitlock.....	E. E. Whitlock.....	Hamilton.....	Bituminous.....	53	1
Shelton.....	H. D. Shelton.....	Maybell.....	Bituminous.....	30	1
	Number of Mines operated: 11			117	14
					4,923

MONTEZUMA COUNTY

Mancos Hill.....	Mancos Hill Coal Co.....	Mancos.....	Semi-bituminous.....	162	4
Willden.....	Willden Coal Co.....	Mancos.....	Bituminous.....	170	2
Dolores.....	Dominick Gorbella.....	Dolores.....	Semi-bituminous.....	101	2
Morris.....	James Morris.....	Dolores.....	Semi-bituminous.....	360	2
Spencer.....	Geo. S. Spencer.....	Mancos.....	Semi-bituminous.....	239	2
Pinos Altos.....	H. A. Ainsworth.....	Mancos.....	Semi-bituminous.....	122	2
Mancos.....	Mancos Coal & Lumber Co.....	Mancos.....	Semi-bituminous.....	84	2
Mesa Verde.....	Wood & Black.....	Cortez.....	Semi-bituminous.....	25	3
Cortez.....	A. F. Hopper.....	Cortez.....	Semi-bituminous.....	45	2
Bud Ince.....	Bud Ince.....	Dolores.....	Semi-bituminous.....	60	1
Sunnyside.....	George A. Greenwood.....	Lebanon.....	Semi-bituminous.....	30	1
	Number of Mines operated: 11			132.8	23
					5,666

MONTROSE COUNTY

Liberty Bell.....	King & Mitchell.....	Nuclea.....	Bituminous.....	250	2
Rice.....	Arthur Rice.....	Norwood.....	Bituminous.....	126	1
Independence.....	W. J. Oberding.....	Nuclea.....	Bituminous.....	120	1
Pleasant Valley.....	W. T. Holder.....	Nuclea.....	Bituminous.....	78	1
Ute (Babej).....	Michael Babej.....	Montrose.....	Bituminous.....	80	1
	Number of Mines operated: 5			150.7	6
					1,447

TABLE D—1933—Continued.

OURAY COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Kennedy Colona	H. A. Kennedy Colona Coal Co.	Ridgway Montrose	Sub-bituminous Sub-bituminous	90 60	2 1	353 54	.....
Number	of Mines operated: 2			80	3	407	.....

PITKIN COUNTY

Placita	Hughes & McCann	Placita	Bituminous	138	3	1,674	.....
Number	of Mines operated: 1			138	3	1,674	.....

RIO BLANCO COUNTY

New Pollard	C. F. Pollard	Meeker	Bituminous	245	2	1,981	.....
Pollard	Electric Coal Co.	Meeker	Bituminous	237	2	1,791	50
McKee	Electric Coal Co.	Meeker	Bituminous	76	1	149	10
Reinart	R. C. Reinart	Meeker	Bituminous	224	2	1,007	4
Nine Mile Hill	Thos. D. Foreman	Meeker	Bituminous	150	1	799	5
Johnny Boy	G. G. Hart & Son	Meeker	Bituminous	109	1	438	10
Lion Canon	G. G. Hart & Son	Meeker	Bituminous	68	2	350	10
Pleasant	Lamm & Adair	Rio Blanco	Bituminous	90	2	221	.....
Fairfield	E. F. Fairfield	Meeker	Bituminous	150	1	141	.....
Ford	Claude Lamm	Rio Blanco	Bituminous	40	2	76	5
Douglas Creek	Jones & Trachta	Rangely	Bituminous	20	2	30	.....
Number	of Mines operated: 11			120.8	18	6,983	.....

ROUTT COUNTY

Number	Location	Product	Quantity	Value	Weight
Harris	Colorado & Utah Coal Co.	Bituminous	129	62.1	117,825
Moffat 1 & 2	Moffat Coal Co.	Oak Creek	167	76	93,387
Hayden No. 3	Hayden Coal Co.	Bituminous	104	50.2	69,894
Pinnacle	Victor-American Fuel Co.	Bituminous	109	64.1	57,489
Wadge	Victor-American Fuel Co.	Bituminous	24	22.3	11,722
Keystone	Keystone Coal Co.	Bituminous	63	77	38,430
Bear River	Bear River	Bituminous	61	64	31,843
P. K. No. 1	Pinnacle-Kemmerer Fuel Co.	Bituminous	38	61.1	18,485
McNeill	McNeill Coal Corp.	Bituminous	35	70	13,454
Argo	Geo. T. Rolfes	Bituminous	7	201	6,907
Seven Points	Routt County Mining Co.	Bituminous	12	77	2,226
Hayden Valley	Hayden Valley Mutual Coal Co.	Bituminous	2	179	1,308
Babson	Babson Coal Co.	Bituminous	3	124.5	1,127
Butcher Knife	Big Five Coal Co.	Bituminous	3	116	1,149
Ritchneg	Little Pinnacle Coal Co.	Bituminous	2	92	860
Blue Spruce	W. L. Jones	Bituminous	2	100	612
Premium	Fruth & Micheletti	Bituminous	2	72	390
Morgan	John Pollo, Jr.	Bituminous	2	99	372
Amos	Amos Coal Co.	Bituminous	1	114	263
Jones	Jones Coal Co.	Bituminous	2	48	148
Chergo	Tom Chergo	Bituminous	1	45	130
Webber	J. E. Webber	Bituminous	1	8	106
Scott	J. E. Webber	Bituminous	1	24	100
Black Cat	Black Cat Coal Co.	Bituminous	2	20	97
Zenith	Colorado Pinnacle Coal Co.	Bituminous	2	25	74
Beaudette	Beaudette Coal Co.	Bituminous	3	30	68
Apex	Geo. Steel & Co.	Bituminous	2	15	47
Fish Creek	Kaspar Webberkirch	Bituminous	1	8	25
Number	of Mines operated		781	66.1	468,538

SAN MIGUEL COUNTY

Number	of Mines operated.	5.				
Keck-Rellance.....	A. E. Hardman & Son.....	Norwood.....	Bituminous.....	120	1	528
Elder.....	Elder Coal Co.....	Norwood.....	Bituminous.....	158	2	348
Horton.....	Horton Coal Co.....	Norwood.....	Semi-bituminous.....	90	1	196
L. J. Gray.....	L. J. Gray.....	Norwood.....	Semi-bituminous.....	160	1	167
Marriott.....	Wm. Marriott.....	Norwood.....	Semi-bituminous.....	90	1	150
				119.3	6	1,389

TABLE D—1933—Continued.

WELD COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
Columbine.....	Rocky Mountain Fuel Co.	Serene.....	Sub-bituminous.....	228.8	230	273,291	1600
Grant.....	Rocky Mountain Fuel Co.	Frederick.....	Sub-bituminous.....	248	107	127,266	1000
Morrison.....	Clayton Coal Co.	Erie.....	Sub-bituminous.....	127	117	113,248	2000
Clayton.....	Clayton Coal Co.	Erie.....	Sub-bituminous.....	90.5	145	93,089	2000
Boulder Valley.....	Boulder Valley Coal Co.	Erie.....	Sub-bituminous.....	110	101	165,609	2000
Puritan.....	National Fuel Co.	Frederick.....	Sub-bituminous.....	139.6	166	160,809	1400
Imperial.....	Imperial Coal Co.	Erie.....	Sub-bituminous.....	162	119	118,872	1500
Baum.....	Consolidated Coal & Coke Co.	Dacono.....	Sub-bituminous.....	152	112	99,451	500
Russell.....	W. E. Russell Coal Co.	Frederick.....	Sub-bituminous.....	163	74	96,033	600
Sterling.....	McNeil Coal Corp.	Dacono.....	Sub-bituminous.....	153.5	89	83,361	1000
Shamrock.....	Shamrock Coal Co.	Frederick.....	Sub-bituminous.....	114	87	73,754	800
Liley.....	Liley Coal & Land Co.	Frederick.....	Sub-bituminous.....	219	43	48,327	350
Monroe.....	Monroe Coal Co.	Louisville.....	Sub-bituminous.....	259	15	10,211	100
Buddy.....	Buddy Coal Co.	LaSalle.....	Sub-bituminous.....	247	8	3,767	.....
White Ash.....	White Ash Coal Co.	LaSalle.....	Sub-bituminous.....	229	4	1,879	.....
Hill.....	L. W. Pickett.....	Briggsdale.....	Sub-bituminous.....	113	2	825	30
Casselman.....	Walter Casselman.....	LaSalle.....	Sub-bituminous.....	30	4	486	.....
Number	of Mines operated: 17	.....	.....	161.6	1423	1,470,278	.....

STATE OF COLORADO

Number of Counties Producing.....	26
Number of Mines Reporting.....	371
Number of Man-Days.....	139.5
Number of Men Employed in and About Mines.....	8,179
Total Tons Produced.....	5,284,872

TABLE D—1934.

SHOWING BY COUNTIES, MINES OPERATED, NAME OF OPERATOR, AND ADDRESS OF MINE, CHARACTER OF COAL, NUMBER OF DAYS WORKED, AVERAGE NUMBER OF MEN EMPLOYED, TOTAL NUMBER OF TONS OF COAL PRODUCED IN 1934 AND CAPACITY OF MINE PER DAY IN TONS.

ADAMS COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
Rock Creek.....	Rock Creek Coal Co.....	Byers.....	Sub-bituminous.....	200	1	421	-----
Number	of Mines operated: 1.....			200	1	421	-----

ARCHULETA COUNTY

Gallego.....	Gerio Gallegos.....	Pagosa Springs.....	Sub-bituminous.....	104	2	250	2
Nossaman.....	W. J. Nossaman.....	Pagosa Springs.....	Sub-bituminous.....	100	2	250	-----
Cox.....	T. L. Cox.....	Pagosa Springs.....	Sub-bituminous.....	138	1	190	-----
Bellino.....	Antonita & Bellino.....	Pagosa Junction.....	Sub-bituminous.....	130	2	190	-----
McBroom.....	Chas. McBroom.....	Dyke.....	Sub-bituminous.....	20	1	37	-----
Number	of Mines operated: 5.....			102.5	8	917	-----

BOULDER COUNTY

Industrial.....	Rocky Mountain Fuel Co.....	Superior.....	Sub-bituminous.....	119.9	139	68,576	800
Vulcan.....	Rocky Mountain Fuel Co.....	Lafayette.....	Sub-bituminous.....	213.3	57	35,013	250
Standard.....	James Harris & Associates.....	Lafayette.....	Sub-bituminous.....	284	16	11,178	300
Monarch No. 2.....	National Fuel Co.....	Broomfield.....	Sub-bituminous.....	154.5	134	96,119	700
Hi-Way.....	Louisville-Lafayette Coal Co.....	Broomfield.....	Sub-bituminous.....	166	115	79,851	700
Crown.....	David Allan.....	Gorham.....	Sub-bituminous.....	270	93	58,684	500
Black Diamond No. 2.....	Black Diamond Fuel Co.....	Boulder.....	Sub-bituminous.....	295	58	48,378	600

TABLE D—1934—Continued.
BOULDER COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Pluto No. 2.....	Pluto Coal M. Co.....	Superior.....	Sub-bituminous.....	260	15	13,006	100
Gorham No. 2.....	Domestic Coal Co.....	Boulder.....	Sub-bituminous.....	154	14	9,367	135
Eldorado.....	Eldorado.....	Gorham.....	Sub-bituminous.....	247	10	7,340	50
High View.....	High View Coal Co.....	Gorham.....	Sub-bituminous.....	227	8	6,731	50
Fireside.....	Ko-Z Coal Co.....	Louisville.....	Sub-bituminous.....	236	11	5,836	-----
Lewis No. 2 (Peerless).....	Hi-Carbon Coal Co.....	Gorham.....	Sub-bituminous.....	138	13	4,852	-----
Arrow.....	Arrow Coal Co.....	Gorham.....	Sub-bituminous.....	221	9	4,144	20
New Ross.....	Ross Coal Co.....	Louisville.....	Sub-bituminous.....	269	8	3,524	20
Eagle.....	Eagle Coal Co.....	Gorham.....	Sub-bituminous.....	71	4	3,038	50
Paramount.....	Paramount Coal Co.....	Lafayette.....	Sub-bituminous.....	205	4	1,839	10
Red Ash No. 2.....	Pittsburgh Coal Co.....	Gorham.....	Sub-bituminous.....	162	4	1,350	10
Premier.....	Premier Coal Co.....	Boulder.....	Sub-bituminous.....	100	4	1,250	15
Cactus.....	Cactus Coal Co.....	Boulder.....	Sub-bituminous.....	220	2	1,140	10
Banner.....	Banner Coal Co.....	Gorham.....	Sub-bituminous.....	44	14	904	-----
Pine Cliff.....	Tri-State Coal Association.....	Boulder.....	Sub-bituminous.....	212	4	773	12
Northern.....	Northern Coal Co.....	Gorham.....	Sub-bituminous.....	96	3	721	-----
Number	of Mines operated: 23.			139.3	739	462,614	

DELTA COUNTY

King.....	Juanita Coal & Coke Co.....	Bowie.....	Bituminous.....	76	35	21,705	100
Green Valley.....	Green Valley Coal Co.....	Cedaredge.....	Sub-bituminous.....	263	5	3,764	60
Red Canon.....	Red Canon Coal Co.....	Cedaredge.....	Sub-bituminous.....	234.5	4	2,966	30
Winton.....	Winton Coal Co.....	Austin.....	Sub-bituminous.....	154	3	2,343	75
Paonia.....	Paonia-Farmers Coal Co.....	Paonia.....	Sub-bituminous.....	191	2	2,179	15

DELTA COUNTY—Continued

Black Diamond.....	Black Diamond Coal Co.....	Cedarledge.....	Sub-bituminous.....	100	2	1,100
Independent.....	Independent Coal Co.....	Cedarledge.....	Sub-bituminous.....	137	3	966
Red Mountain.....	States Hall Coal Co.....	Cedarledge.....	Sub-bituminous.....	151	3	903
States.....	States Hall Coal Co.....	Cedarledge.....	Sub-bituminous.....	99	2	900
Rollins.....	Rollins Fuel Co.....	Delta.....	Sub-bituminous.....	156	1	402
Fitzsimmons.....	Hice Coal Co.....	Paonia.....	Sub-bituminous.....	96	2	395
Bennett.....	Bennett Coal Co.....	Hotchkliss.....	Sub-bituminous.....	98	1	390
Western Star.....	Western Star Coal Co.....	Cedarledge.....	Sub-bituminous.....	70	1	276
Converse.....	Oren Kutz.....	Paonia.....	Sub-bituminous.....	126	1	263
Gelwick.....	Gelwick Coal Co.....	Hotchkliss.....	Sub-bituminous.....	25	1	81
Vowell (Leroux Creek)...	Tom Vowell.....	Lazear.....	Sub-bituminous.....	30	1	40
Number	of Mines operated: 16.			116	67	38,673

ELBERT COUNTY

Wright.....	Wright Barker.....	Matheson.....	Sub-bituminous.....	212	2	2,196
Jordan.....	Guy Jordan.....	Agate.....	Sub-bituminous.....	120	3	1,507
Mascot.....	Mascot Coal, Oil & Clay Co.....	Matheson.....	Sub-bituminous.....	107	2	508
Fondis.....	Fondis Coal Co.....	Fondis.....	Sub-bituminous.....	190	1	270
Beaver Valley.....	J. M. Dairymple & Son.....	Agate.....	Sub-bituminous.....	19	4	200
White Ash.....	D. F. Shea.....	Matheson.....	Sub-bituminous.....	176	3	1,316
Number	of Mines operated: 6.			119.5	15	5,997

EL PASO COUNTY

Pikeview.....	Pikes Peak Fuel Co.....	Pikeview.....	Sub-bituminous.....	232	162	208,677
City Coal Mines.....	Colorado Springs Co.....	Colorado Springs.....	Sub-bituminous.....	281	63	34,765
Altitude.....	Altitude Fuel Co.....	Colorado Springs.....	Sub-bituminous.....	312	19	12,073
Jimmy Camp.....	Thomas Mining Co.....	Colorado Springs.....	Sub-bituminous.....	239.5	22	11,929
Corley No. 1.....	Corley Coal Co.....	Colorado Springs.....	Sub-bituminous.....	108	21	8,089
Corley No. 3.....	Corley Coal Co.....	Colorado Springs.....	Sub-bituminous.....	275	11	6,297
Busy Bee.....	Busy Bee Coal Co.....	Colorado Springs.....	Sub-bituminous.....	306	6	4,331

TABLE D—1934—Continued.
EL PASO COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
New Keystone.....	John Streenan	Colorado Springs.....	Sub-bituminous.....	188	9	3,701	20
Climax.....	Danville Coal Co.....	Colorado Springs.....	Sub-bituminous.....	236	3	2,289	9
Drennan.....	Drennan Coal Co.....	Colorado Springs.....	Sub-bituminous.....	163	2	673	10
Rush.....	Guy McPherson.....	Rush.....	Sub-bituminous.....	120	3	438	10
Number	of Mines operated: 11.....			222.5	321	293,262	
FREMONT COUNTY							
Chandler.....	Victor-American Fuel Co.....	Chandler.....	Bituminous.....	168	290	118,312	800
Rockvale.....	Colorado Fuel & Iron Co.....	Canon City.....	Bituminous.....	256.4	59	43,708	400
Canon Black Diamond.....	Canon Black Diamond Coal Co.....	Florence.....	Bituminous.....	297	27	23,630	150
Cedar Canon.....	Gulliano & Carpine.....	Florence.....	Bituminous.....	182	28	22,433	210
Canon Monarch.....	Canon Monarch Coal Co.....	Florence.....	Bituminous.....	195	27	20,079	.....
Double Dick.....	Double Dick Coal Co.....	Florence.....	Bituminous.....	232	26	19,949	.....
Caldirola.....	Caldirola Coal Co.....	Florence.....	Semi-bituminous.....	213	18	17,237	150
American Independent.....	American Independent Coal Co.....	Florence.....	Semi-bituminous.....	186	25	11,609	96
Canon.....	Canon-Reliance Coal Co.....	Florence.....	Bituminous.....	25	107	9,892	350
Rocchio.....	Rocchio Coal Co.....	Coal Creek.....	Semi-bituminous.....	219	13	8,346	50
Nushaft.....	E. B. Cribbs.....	Coal Creek.....	Bituminous.....	99	19	7,958	100
Rockvale No. 2.....	E. B. Cribbs.....	Coal Creek.....	Bituminous.....	48	43	5,205	.....
Royal Gorge.....	Royal Gorge Coal Co.....	Canon City.....	Bituminous.....	197	18	7,363	90
Griffiths.....	Griffiths Coal M. Co.....	Canon City.....	Bituminous.....	179	11	5,868	.....
Bald.....	J. Bald Coal Co.....	Florence.....	Bituminous.....	150	13	4,535	60
Fawn Hollow.....	Fawn Hollow Coal Co.....	Canon City.....	Bituminous.....	171	12	4,090	26
Bluff Springs.....	Bluff Springs Leasing Co.....	Florence.....	Bituminous.....	163	28	7,807	.....

FREMONT COUNTY—Continued

[illegible]

GARFIELD COUNTY

[illegible]

TABLE D—1934—Continued.

GUNNISON COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Somerset.....	Calumet Fuel Co.....	Somerset.....	Bituminous.....	181	110	160,052	1,200
Crested Butte.....	Colorado Fuel & Iron Co.....	Crested Butte.....	Bituminous.....	133.9	219	154,578	.....
Oliver.....	Oliver Coal Co.....	Somerset.....	Semi-anthracite.....	190	55	50,837	500
Bulkley No. 2.....	Crested Butte Coal Co.....	Gunnison.....	Bituminous.....	221	34	29,998	200
Alpine.....	Rocky Mountain Fuel Co.....	Baldwin.....	Semi-bituminous.....	104	61	29,931	350
Bear.....	Bear Coal & Coke Co.....	Somerset.....	Bituminous.....	149	11	7,110	.....
Richardson.....	Mt. Carbon Anthracite Co.....	Gunnison.....	Anthracite.....	178	16	3,369	20
Horace.....	Horace Anthracite Co.....	Crested Butte.....	Anthracite.....	177	15	3,947	25
Hawke Nest.....	Clement Audin.....	Somerset.....	Bituminous.....	157	3	3,170	18
Lone Pine.....	Lone Pine Coal Co.....	Somerset.....	Bituminous.....	161	3	1,209	20
Ohio Creek.....	Ohio Creek Coal Co.....	Gunnison.....	Bituminous.....	122	3	1,209	25
Baldwin-Star.....	Baldwin Fuel Co.....	Baldwin.....	Semi-bituminous.....	85	10	850	10
Carbon Creek.....	Wm. Waugh.....	Gunnison.....	Bituminous.....	217	2	786	4
Castle Rock.....	Castle Rock Coal Co.....	Gunnison.....	Bituminous.....	168	2	559	12
Hinkle.....	Wade Whitt.....	Gunnison.....	Bituminous.....	114	1	366	8
Number	of Mines operated: 15			150	531	447,971	

HUERFANO COUNTY

Robinson No. 4.....	Colorado Fuel & Iron Co.....	Farr.....	Bituminous.....	196.9	210	185,312	1,000
Kehler No. 2.....	Colorado Fuel & Iron Co.....	Tloga.....	Bituminous.....	192.8	140	98,482	850
Alamo No. 1.....	Alamo Coal Co.....	Alamo.....	Bituminous.....	207	96	62,958	1,000
Alamo No. 2.....	Barbour Coal Co.....	Alamo.....	Bituminous.....	93	109	38,483	1,000
Calumet No. 2.....	Calumet Fuel Co.....	Delcarbon.....	Bituminous.....	129.1	86	50,397	600

HUERFANO COUNTY—Continued

Location	Company	Product	Quantity	Value
Gordon	Gordon Coal Co.	Bituminous	222	43,266
Ravenwood	Caliente Coal Co.	Bituminous	159	33,848
Maitland	Caliente Coal Co.	Bituminous	47	9,549
Pryor	Pryor Coal M. Co.	Bituminous	98.6	26,221
Ojo Canon	Peachey Coal Co.	Bituminous	221	14,431
Toltec	Aztec Coal M. Co.	Bituminous	99	11,179
Leader No. 2	Red Ash Coal Co.	Bituminous	266	8,570
Vista	Minnequa Fuel Co.	Bituminous	39	8,090
Torrid	Torrid Coal M. Co.	Bituminous	187.5	7,144
Major	Major Coal Co.	Bituminous	133	5,935
Black Hawk	Black Hawk Coal M. Co.	Bituminous	118	2,418
Spanish Peak	W. A. Ream Coal Co.	Bituminous	22	2,751
Bunker Hill No. 1	Steve Mattivi & Son.	Bituminous	98	1,639
Bunker Hill No. 2	Sowers Coal Co.	Bituminous	116	880
Round Oak	Giordano Coal Co.	Bituminous	205	1,306
Spring Canon	Spring Canon Coal Co.	Bituminous	208	1,139
Caddell No. 1	P. & T. Coal Co.	Bituminous	62	505
Caddell No. 3	Caddell Coal Co.	Bituminous	161	978
George No. 2	Sam George & Sons	Bituminous	132	837
Shamrock	Shamrock Coal Co.	Bituminous	200	650
Murrell	James Murrell	Bituminous	105	551
Strawberry	Strawberry Coal Co.	Bituminous	19	105
Number	of Mines operated :		1,130	607,624

JACKSON COUNTY

Rabbitear (Moore)	North Park Fuel Co.	Coal:ont.	Sub-bituminous	153	33	22,748	220
Marr.	Geo. M. Barnell.	Walden.	Sub-bituminous	193	4	1,910	30
	Number of Mines operated: 2			159.1	37	24,658	

TABLE D—1934—Continued.
JEFFERSON COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
Leyden No. 3	Leyden Lignite Co.	Leyden via Golden	Sub-bituminous	190.3	113	117,783	750
Virginia	Jefferson Coal Co.	Littleton	Sub-bituminous	299	9	8,173	40
Unity	Wild Cat Leasing Co.	Littleton	Sub-bituminous	255	7	4,467	50
Christensen	Littleton Valley Coal Co.	Littleton	Sub-bituminous	52	30	2,871	25
Van Winkle	Van Winkle Coal Co.	Golden	Sub-bituminous	238	4	2,372	30
Caprock	Caprock Fuel Co.	Ravenwood	Sub-bituminous	22	17	818	30
Denney	Denney Coal Co.	Golden	Sub-bituminous	73	2	213	.....
Blue Bird	L. A. Benster	Morrison	Sub-bituminous	31	2	111	.....
Number	of Mines operated: 8	.....	.....	157.9	184	136,808	.....

LA PLATA COUNTY

Castle	Castle Coal M. Corp.	Durango	Semi-bituminous	259	7	5,721	150
O. K.	O. K. Coal Co.	Durango	Bituminous	69	8	2,467	50
Sunshine	Sunshine Coal Co.	Durango	Bituminous	187	2	2,033	.....
Morning Star	Baudino & Co.	Durango	Bituminous	93	3	1,540	17
Durango	Durango Coal Co.	Durango	Bituminous	235	4	1,421	50
Fire Glow	George Brown	Durango	Bituminous	206.5	2	1,412	15
Hay Gulch	H. J. Rasmussen	Hesperus	Bituminous	190	1	1,251	.....
Valley View	Valley View Coal Co.	Mancos	Bituminous	149	2	1,100	.....
Black Diamond	Black Diamond Coal Co.	Durango	Bituminous	185	3	1,068	75
Superior	Superior Fuel Co.	Durango	Bituminous	139	2	1,007	.....
Triangle	Triangle Coal Co.	Durango	Bituminous	185.5	1	763	20
Peerless	Peerless Coal Co.	Durango	Bituminous	80	2	731	9
Morning Glory	Chas. Yingling	Bayfield	Bituminous	118	1	552	5

LA PLATA COUNTY—Continued

Tipotsch.....	Frank Tipotsch.....	Hesperus.....	Bituminous.....	114	2	534
Shamrock.....	James A. Bierce.....	Bayfield.....	Bituminous.....	149	2	390
Excelsior.....	Chas. Batcheler.....	Bayfield.....	Bituminous.....	96	2	366
Hunt.....	Wm. Hunt.....	Hesperus.....	Bituminous.....	48	2	263
Elledge.....	Frank Elledge.....	Durango.....	Bituminous.....	70	2	209
Hammond.....	M. F. Leonard.....	Bayfield.....	Bituminous.....	34	1	185
Ft. Lewis.....	Xavier Dufur.....	Kline.....	Bituminous.....	74	1	159
Pine River.....	Pine River Coal Co.....	Bayfield.....	Bituminous.....	135	1	240
Henderson.....	J. B. Henderson.....	Hesperus.....	Bituminous.....	21	3	112
Soda Springs.....	A. F. Visage.....	Kirtland (N. Mex.)....	Bituminous.....	20	2	114
Number.....	of Mines operated: 23.....	.....	.....	133.1	56	23,638

LARIMER COUNTY

Hackman No. 1.....	Hackman Coal Co.....	Carr.....	Sub-bituminous.....	178	3	2,037
Benson.....	Lowe Coal Co.....	Carr.....	Sub-bituminous.....	124	5	1,208
Bachy.....	Bachy Coal Co.....	Carr.....	Sub-bituminous.....	200	1	250
Ayrshire.....	Ayrshire Coal Co.....	Carr.....	Sub-bituminous.....	32	2	206
Number.....	of Mines operated: 4.....	.....	.....	128.9	11	3,701

LAS ANIMAS COUNTY

Frederick.....	Colorado Fuel & Iron Co.....	Valdez.....	Bituminous.....	182.7	245	241,520
Morley.....	Colorado Fuel & Iron Co.....	Morley.....	Bituminous.....	73.9	210	74,344
Delagua.....	Victor-American Fuel Co.....	Delagua.....	Bituminous.....	136	237	171,509
Boncarbo.....	American Smelting & Ref. Co.....	Cokedale.....	Bituminous.....	84	126	82,804
Brodhead No. 9.....	Temple Fuel Co.....	Brodhead.....	Bituminous.....	218.3	109	64,326
Kenneth.....	Vickers Coal Co.....	Rugby.....	Bituminous.....	136	89	41,740
Ludlow.....	Huerfano Coal Co.....	Ludlow.....	Bituminous.....	112	122	46,182
Empire.....	Empire Coal M. Co.....	Aguilar.....	Bituminous.....	89.8	54	27,896
Creston.....	Jewel Collieries Corp.....	Aguilar.....	Bituminous.....	111	50	19,776
Dix.....	Dick Coal Co.....	Dix.....	Bituminous.....	123	26	16,697

TABLE D—1934—Continued.
LAS ANIMAS COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Bear Canon No. 6	Bear Canon Coal Co.	Valloriso	Bituminous	56	40	14,358	1,000
Rapson	Pio Micheli	Rapson	Bituminous	152	23	13,471	300
Sopris No. 1	Dellosso Coal Co.	Sopris	Bituminous	94.5	18	7,670	40
Engle	Dellosso Coal Co.	Trinidad	Bituminous	85	6	1,827	20
Niggerhead	Niggerhead Mining Co.	Agular	Bituminous	93.5	33	6,223	50
Thor	Thor Fuel Co.	Trinidad	Bituminous	76.6	16	5,592	100
Eureka (Anchor)	Phoenix Fuel Co.	Dicks	Bituminous	38	44	4,076	100
Jeffries	Jeffries Fuel Co.	Trinidad	Bituminous	133	12	2,898	75
Bowen	Home Fuel & Supply Co.	Trinidad	Bituminous	154	4	2,855	30
Frisko	Frisko Coal Co.	Trinidad	Bituminous	158	5	2,014	13
Daisy	Daisy Coal Co.	Agular	Bituminous	193	3	1,843	...
Gem	Gem Coal Co.	Agular	Bituminous	148	4	1,635	20
Forbes No. 9	E. Riggs	Trinidad	Bituminous	76	4	1,041	5
Santa Fe	Santa Fe Coal Co.	Trinidad	Bituminous	217	3	1,104	6
Liberty	Liberty Coal Co.	Agular	Bituminous	142	2	999	...
Flag	Joe Roggero	Trinidad	Bituminous	200	1	871	10
Burro Canon	Demetrio Sanchez	Boncarbo	Bituminous	180	2	720	4
Star	Eugene West	Rugby	Bituminous	102	2	689	...
Owen	W. H. Owen	Trinidad	Bituminous	120	2	685	...
Crystal	Bowman & Son	Dicks	Bituminous	390	2	641	3
Tucker	Sunrise Coal Co.	Trinidad	Bituminous	175	2	659	25
Baldy	Baldy Coal Co.	Trinidad	Bituminous	80	3	511	...
Midnight	Midnight Coal Co.	Walsenburg	Bituminous	74	3	471	10
J. M.	Trinidad Supply Coal Co.	Trinidad	Bituminous	106	2	493	4
Fishers Peak	Walter Marsh	Trinidad	Bituminous	113	1	435	...
Martorano	M. Martorano & Son	Sopris	Bituminous	90	2	433	...
Bagley	Ideal Coal Co.	Trinidad	Bituminous	150	2	299	10

LAS ANIMAS COUNTY—Continued

Rainbow.....	Rainbow Coal Co.....	Trinidad.....	Bituminous.....	90	3	250	14
Trujillo.....	L. Trujillo.....	Valdez.....	Bituminous.....	40	3	250	.....
Beshoar.....	Wm. G. Wilton.....	Trinidad.....	Bituminous.....	40	2	203	6
Pritchard.....	F. J. Pritchard.....	Trinidad.....	Bituminous.....	200	2	231	10
Wiley.....	Dan Fredizzi.....	Cokedale.....	Bituminous.....	71	2	191	.....
Martinez.....	Ralph Martinez.....	Cokedale.....	Bituminous.....	136	1	190	1
Bueno.....	Jose Y. Bueno.....	Trinidad.....	Bituminous.....	155	2	180	5
Fairview.....	Ben C. Lucia.....	Sopris.....	Bituminous.....	65	2	176	.....
Garcia.....	Benito Garcia.....	Boncarbo.....	Bituminous.....	90	1	150	.....
Peacock.....	John A. Hollingsworth.....	Trinidad.....	Bituminous.....	90	2	144	10
Stonewall.....	Arrowhead Coal Co.....	Weston.....	Bituminous.....	100	1	100	1
Jackson.....	Standard Coal Co.....	Trinidad.....	Bituminous.....	100	1	100	.....
	of Mines operated : 49.....			126.5	1,591	863,472	.....
Number							

MESA COUNTY

Cameo.....	Kerr Coal Co.....	Cameo.....	Semi-bituminous.....	138	41	22,748	600
Mt. Garfield.....	B. Gearhart.....	Pallsade.....	Semi-bituminous.....	201	8	6,646	50
Pallsade.....	Pallsade Clean Heat Coal Co.....	Pallsade.....	Semi-bituminous.....	155	16	5,090	100
Garfield.....	Garfield Coal Co.....	Pallsade.....	Semi-bituminous.....	138	9	3,204	.....
Winger.....	Clarke Coal Co.....	Pallsade.....	Semi-bituminous.....	112.5	3	2,452	50
Blue Flame.....	Martin Coal Co.....	Pallsade.....	Semi-bituminous.....	120	4	2,519	20
Stove Canon.....	Stove Canon Coal Co.....	Fruta.....	Semi-bituminous.....	139	3	1,625	40
River View (P. V.).....	Riverview Coal Co.....	Cameo.....	Semi-bituminous.....	190	3	1,955	10
Midwest.....	Midwest Red Arrow Coal Co.....	Pallsade.....	Semi-bituminous.....	135	5	1,778	40
McGinley.....	Wm. McGinley.....	Grand Junction.....	Bituminous.....	187	2	1,659	25
Thomas.....	Thomas Coal Co.....	Grand Junction.....	Bituminous.....	147	4	1,661	15
Riverside.....	Riverside Coal Co.....	Pallsade.....	Semi-bituminous.....	142	5	1,501	.....
Hidden Treasure.....	Hidden Treasure Coal Co.....	Fruta.....	Semi-bituminous.....	125	2	1,007	50
Williams.....	Williams Coal Co.....	Grand Junction.....	Semi-bituminous.....	112	3	1,067	.....
Mundell.....	J. W. Mundell.....	Grand Junction.....	Semi-bituminous.....	50	2	1,041	5
Hunter.....	J. B. Hunter.....	Fruta.....	Semi-bituminous.....	175	2	959	.....
Stokes.....	W. D. Stokes.....	Pallsade.....	Semi-bituminous.....	170	3	938	50
Farmer No. 1.....	Farmers Mutual Coal Co.....	Grand Junction.....	Semi-bituminous.....	206	2	809	25

TABLE D—1934—Continued.

MESA COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Num- ber of Tons Produced	Capacity of Mine per Day, Tons
Garvy.....	Garvy Coal Co.....	Fruita.....	Semi-bituminous.....	259	2	640	10
Nearing.....	Mesa County Quality Coal Co.....	Fruita.....	Semi-bituminous.....	157	3	633	10
Peacock.....	Peacock Coal Co.....	Grand Junction.....	Semi-bituminous.....	180	2	598	4
Anchor.....	Anchor Coal Co.....	Grand Junction.....	Semi-bituminous.....	148	2	542	6
Corcoran.....	Joe Worthington.....	Grand Junction.....	Semi-bituminous.....	120	1	400	.....
Jarvis.....	Clarence Allen.....	Grand Junction.....	Semi-bituminous.....	60	2	154	.....
Coal Gulch.....	Coal Gulch Coal Co.....	Loma.....	Semi-bituminous.....	60	1	152	.....
Mt. Lincoln.....	Mt. Lincoln Coal Co.....	Pallisade.....	Semi-bituminous.....	90	2	150	.....
Marinelli.....	Mike Marinelli.....	Fruita.....	Semi-bituminous.....	40	2	138	3
Kannah Creek.....	Kannah Creek Co-op. Coal Mining Ass'n.....	Whitewater.....	Semi-bituminous.....	16	2	51	5
Number	of Mines operated: 28.....	.....	.....	145.1	136	62,117	.....

MOFFAT COUNTY

Knez.....	Joe Knez.....	Craig.....	Bituminous.....	187	2	1,232	.....
Shaver.....	C. G. Phelan.....	Axial.....	Bituminous.....	200	2	1,209	.....
Community.....	Community Coal Co.....	Craig.....	Sub-bituminous.....	77	1	389	.....
Blair.....	Blair Coal Co.....	Craig.....	Sub-bituminous.....	187	1	240	.....
Hart.....	Thomas Green.....	Craig.....	Sub-bituminous.....	59	1	141	.....
Wisconsin.....	Wisconsin Coal M. Co.....	Craig.....	Sub-bituminous.....	75	1	81	.....
Shelton.....	H. D. Shelton.....	Maybell.....	Sub-bituminous.....	12	1	30	.....
Number	of Mines operated: 7.....	.....	.....	131.5	9	3,322	.....

MONTEZUMA COUNTY

Hill Top.....	Mancos Hill Coal Co.....	Semi-bituminous.....	6	1,950
Dolores.....	Dominick Gorbella.....	Dolores.....	2	1,310
Mancos.....	Mancos Coal Co.....	Mancos.....	2	972
Wilden.....	Wilden Coal Co.....	Mancos.....	2	791
Mesa Verde.....	Earnest Black.....	Cortez.....	10	637
Morris.....	G. W. Morris.....	Dolores.....	2	557
Spencer.....	Geo. S. Spencer.....	Mancos.....	1	521
Cortez.....	Cortez Coal Co.....	Cortez.....	2	484
Pinos Altos.....	H. A. Almsworth.....	Mancos.....	2	168
Stakish (Ocean Wave).....	Geo. Stakish.....	Yellow Jacket.....	1	57
	of Mines operated: 10.....		30	7,447
Number				

MONTROSE COUNTY

[illegible]

OURAY COUNTY

Bright Diamond.....	C. D. Slagle.....	Ridgway.....	Sub-bituminous.....	300	2	377
Kennedy.....	H. A. Kennedy.....	Ridgway.....	Sub-bituminous.....	90	1	382
Colona.....	Colona Coal Co.....	Montrose.....	Sub-bituminous.....	15	1	37
Number	of Mines operated: 3			176.1	4	796

PITKIN COUNTY

Placita.....	Placita Mine L. Co.....	Carbondale.....	Bituminous.....	100	2	1,093
	Number of Mines operated: 1.....			100	2	1,093

TABLE D—1934—Continued.

RIO BLANCO COUNTY

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
New Pollard	C. F. Pollard	Meeker	Bituminous	239	2	1,813	10
Pollard	Electric Coal Co.	Meeker	Bituminous	262	2	1,430	50
McKee	Electric Coal Co.	Meeker	Bituminous	41	1	72	.....
Rio Blanco	Ivor Adair	Rio Blanco	Bituminous	213	2	878	.....
Reinau	R. C. Reinau	Meeker	Bituminous	124	1	602	.....
Johnny Boy	Hart & Son	Meeker	Bituminous	181	1	562	10
Nine Mile	Thos. D. Foreman	Meeker	Bituminous	216	1	478	50
Douglas Creek	Jones & Trachta	Rangely	Bituminous	30	2	79	4
Number	of Mines operated : 8			168.1	12	5,914	

ROUTT COUNTY

Harris	Colorado & Utah Coal Co.	Mt. Harris	Bituminous	65.1	148	102,173	4,000
Moffat Nos. 1 & 2	Moffat Coal Co.	Oak Creek	Bituminous	94.9	132	97,984	4,000
Hayden No. 3	Hayden Coal Co.	Haybro	Bituminous	72	131	90,603	1,500
Pinnacle	Victor-American Fuel Co.	Oak Creek	Bituminous	94	119	68,188	1,500
Wadge	Victor-American Fuel Co.	Mt. Harris	Bituminous	46	40	22,869	1,000
Bear River	Bear River Coal Co.	Bear River	Bituminous	100	52	42,276	1,000
Keystone	Keystone Coal Co.	Routt	Bituminous	75.5	62	33,358	1,000
Putehar Knife	Frank Coryell	Bear River	Bituminous	78	8	8,382	.....
McNeil	W. H. Neish	McGregor	Bituminous	300	5	5,741	40
Argo Gulch	Geo. T. Rolfee	Oak Creek	Bituminous	172	6	4,758	50
Seven Point	ROUTT County Mining Co.	Phippsburg	Bituminous	123	7	4,194	150
P. K. No. 1	Pinnacle-Kammerer Fuel Co.	Mt. Harris	Bituminous	10.5	35	2,825	500
Block	E. H. Zimmerman	Steamboat Springs	Bituminous	200	2	1,351	25

ROUTT COUNTY—Continued

Number	of Mines operated :	27	Hayden	Bituminous	108	2	1,056
Babson	Babson Coal Co.		Hayden	Bituminous	138	2	30
Hayden Valley	Hayden Valley Coal M. Co.		Hayden	Semi-bituminous	150	2	941
Black Cat	Black Cat Coal Co.		Bear River	Bituminous	138	2	909
Apex	Geo. Steel & Co.		Oak Creek	Bituminous	90	3	739
Premium	Fruth & Micheletti		Milner	Bituminous	133	2	673
Babich	Nick Babich		Oak Creek	Bituminous	100	1	3
Ritchneg	Little Pinnacle Coal Co.		Bear River	Bituminous	51	2	500
Jones	Jones Coal Co.		Bear River	Bituminous	100	2	421
Morgan	John Pollo, Jr.		Steamboat Springs	Bituminous	51	1	342
Blue Spruce	W. L. Jones		Oak Creek	Bituminous	250	2	306
				Bituminous			373
Ben Male	Donald Cline		Oak Creek	Bituminous	92	3	297
Chergo	Tom Chergo		Oak Creek	Bituminous	50	1	5
Amos	Amos Coal Co.		Milner	Bituminous	62.5	1	220
Webber	J. E. Webber		Pagoda	Bituminous	35	1	152
	of Mines operated :	27			81	812	491,881

SAN MIGUEL COUNTY

Keck-Reliance.....	A. E. Hardman & Son.....	Norwood.....	Sub-bituminous.....	150.....	2.....	420.....
Elder.....	Gene Elder.....	Norwood.....	Sub-bituminous.....	146.....	2.....	332.....
Gray.....	L. J. Gray.....	Norwood.....	Sub-bituminous.....	150.....	1.....	310.....
Marriott.....	Wm. Marriott.....	Norwood.....	Sub-bituminous.....	86.....	1.....	162.....
Horton.....	Horton Coal Co.....	Norwood.....	Sub-bituminous.....	90.....	1.....	154.....
Number.....	of Mines operated : 5.....	.....	.....	132.....	7.....	1,378.....

WELD COUNTY

Columbine.....	Rocky Mountain Fuel Co.	.....	214	263	222,881
Grant.....	Rocky Mountain Fuel Co.	.....	221	134	149,317
Morrison.....	Clayton Coal Co.	.....	126	148	127,487
Clayton.....	Clayton Coal Co.	.....	101	125	89,592
Boulder Valley.....	Boulder Valley Coal Co.	.....	125	96	161,148

TABLE D—1934—Continued.

WELD COUNTY—Continued

Name of Mine	Name of Company	Mine Post Office	Character of Coal	Number of Days Worked	Average No. of Men Employed	Total Number of Tons Produced	Capacity of Mine per Day, Tons
Imperial.....	Imperial Coal Co.....	Erie.....	Sub-bituminous.....	183	123	121,775	1,200
Russell.....	Wm. E. Russell Coal Co.....	Frederick.....	Sub-bituminous.....	185	78	103,702	500
Sterling.....	McNeil Coal Corp.....	Dacono.....	Sub-bituminous.....	174	91	89,662	1,000
Baum.....	Consolidated Coal & Coke Co.....	Dacono.....	Sub-bituminous.....	161.8	106	84,622	800
Puritan.....	National Fuel Co.....	Frederick.....	Sub-bituminous.....	92.7	159	81,808	1,600
Shamrock.....	Shamrock Coal Co.....	Frederick.....	Sub-bituminous.....	113.6	84	78,086	800
Liley.....	Liley Coal & Land Co.....	Frederick.....	Sub-bituminous.....	195	42	42,259	200
Monroe.....	Monroe Coal Co.....	Lafayette.....	Sub-bituminous.....	242	20	12,324	80
La Salle.....	La Salle Coal Co.....	La Salle.....	Sub-bituminous.....	217	4	2,201	.....
Buddy.....	Buddy Coal Co.....	La Salle.....	Sub-bituminous.....	179	2	1,814	50
Bohlender.....	Bohlender Coal Co.....	La Salle.....	Sub-bituminous.....	104	7	1,440	20
White Ash.....	White Ash Coal Co.....	La Salle.....	Sub-bituminous.....	190	3	1,213	15
Christy.....	Christy Coal Co.....	La Salle.....	Sub-bituminous.....	154	5	873	.....
Coalridge.....	Black King Coal Co.....	Firestone.....	Sub-bituminous.....	90	5	750	15
Silver State.....	R. E. Combs.....	Ft. Lupton.....	Sub-bituminous.....	75	4	676	15
Hill.....	Hill Coal Co.....	Briggsdale.....	Sub-bituminous.....	106	2	451	20
Sunset.....	E. E. Phillips.....	Evans.....	Sub-bituminous.....	77	3	89	10
Number	of Mines operated : 22.....			159	1,494	1,374,170	

STATE OF COLORADO

Total Number of Mines Operated.....	352
Total Number of Man-Days Worked.....	142,949
Total Number of Men Employed (Average).....	8,138
Total Number of Tons of Coal Produced.....	5,251,003

PRODUCTION BY COUNTIES BY MONTHS, 1931

Month	Archuleta	Boulder	Delta	Elbert	El Paso	Fremont	Garfield
January	----	55,209	9,316	537	47,498	49,483	3,688
February	----	39,020	3,968	355	35,260	21,644	2,245
March	----	47,086	4,581	307	40,518	26,035	2,646
April	----	30,747	2,809	146	27,825	11,723	2,004
May	----	22,659	2,378	42	23,343	24,408	1,683
June	----	11,761	1,438	13	14,634	14,637	1,299
July	----	14,278	788	23	13,258	9,653	1,058
August	----	31,652	3,465	14	15,135	23,814	1,590
September	----	57,958	5,617	78	19,549	37,504	2,383
October	----	50,453	6,078	525	27,985	41,588	3,154
November	----	57,613	7,963	561	38,245	40,174	3,630
December	1,106	80,697	11,801	535	42,728	46,693	5,067
Total	1,106	499,133	60,202	3,136	345,978	347,356	30,447

Month	Gunnison	Huerfano	Jackson	Jefferson	La Plata	Las Animas	Larimer
January	43,157	99,127	4,192	16,425	4,106	158,982	----
February	21,051	58,185	1,927	13,162	2,604	120,806	----
March	29,199	64,346	3,934	13,749	2,163	136,856	----
April	13,081	43,913	2,527	11,517	1,483	114,665	----
May	21,127	73,239	2,495	9,260	1,457	102,480	----
June	20,310	67,583	2,004	8,279	958	97,470	----
July	22,714	55,982	1,304	8,677	1,021	85,889	----
August	34,098	74,736	2,132	8,177	1,429	99,934	----
September	45,967	93,429	3,108	8,343	3,145	112,432	----
October	59,297	117,138	7,617	11,956	4,129	115,616	----
November	47,151	121,143	6,102	14,241	3,225	87,739	----
December	47,057	106,576	6,956	16,588	5,942	101,130	1,914
Total	404,209	975,397	44,298	140,374	31,662	1,333,999	1,914

Month	Mesa	Moffat	Montezuma	Montrose	Ouray	Park
January	10,912	303	587	----	----	----
February	7,400	88	289	----	----	----
March	7,782	136	317	----	----	----
April	5,578	109	189	----	----	----
May	5,139	135	221	----	----	----
June	4,168	54	225	----	----	----
July	5,503	97	82	----	----	----
August	5,788	1,022	73	----	----	----
September	7,778	318	342	----	----	----
October	9,038	673	294	----	----	----
November	9,584	364	341	----	----	----
December	14,009	654	2,025	1,143	1,742	200
Total	92,679	3,953	4,985	1,143	1,742	200

Month	Pitkin	Rio Blanco	Routt	San Miguel	Weld	Total
January	1,221	1,158	73,352	----	245,454	824,707
February	1,206	718	21,145	----	165,303	516,376
March	1,217	710	41,506	----	196,116	619,204
April	980	368	19,583	----	109,050	398,297
May	1,151	269	38,948	----	65,940	396,374
June	1,069	196	18,402	----	41,766	306,266
July	345	176	12,075	----	48,442	281,365
August	302	264	57,850	----	68,067	429,542
September	607	543	67,458	----	137,979	604,538
October	914	612	76,774	----	168,665	702,506
November	657	855	77,379	----	212,615	729,582
December	506	2,078	69,739	1,504	226,916	795,306
Total	10,175	7,947	574,211	1,504	1,686,313	6,604,063

PRODUCTION BY COUNTIES BY MONTHS, 1932

Month	Arapahoe	Archuleta	Boulder	Delta	Elbert	El Paso	Fremont
January	----	----	79,178	7,155	514	44,527	43,430
February	----	----	65,382	5,635	490	34,124	33,097
March	----	----	59,539	4,282	282	37,365	26,786
April	----	----	30,577	2,026	101	23,919	14,622
May	----	----	17,056	1,805	38	14,613	7,335
June	----	----	13,538	1,661	57	12,248	9,607
July	----	----	14,036	1,478	----	10,618	10,207
August	----	----	23,011	2,321	----	13,548	20,244
September	----	----	60,715	3,840	53	17,998	41,714
October	----	----	60,965	6,201	840	26,876	51,257
November	----	----	57,993	6,916	710	30,573	39,081
December	290	751	89,494	7,489	1,214	47,190	60,607
Total	290	751	571,534	50,809	4,299	313,599	357,987

Month	Garfield	Gunnison	Huerfano	Jackson	Jefferson	La Plata	Larimer
January	4,321	44,134	98,848	5,958	16,197	3,693	541
February	3,516	39,074	71,299	5,143	15,192	2,468	279
March	2,458	22,072	60,428	3,304	15,173	1,064	263
April	1,900	13,023	34,626	3,000	9,935	1,050	67
May	1,522	15,955	35,108	1,771	8,954	1,283	9
June	1,299	14,486	32,240	1,423	7,531	880	26
July	958	15,866	21,025	1,053	8,912	988	10
August	1,773	29,598	35,178	860	8,659	1,250	55
September	2,431	51,703	64,294	3,538	9,442	2,421	166
October	3,221	66,921	82,743	7,038	8,913	4,102	862
November	3,777	48,880	69,533	5,283	10,925	3,432	1,023
December	6,268	43,002	73,170	5,111	12,542	3,347	1,384
Total	33,444	404,714	678,492	43,482	132,380	25,978	4,679

Month	Las Animas	Mesa	Moffat	Montezuma	Montrose	Ouray	Park
January	103,277	10,761	436	786	----	----	----
February	90,063	7,500	358	481	----	----	----
March	97,811	6,248	99	345	----	----	----
April	61,909	3,789	179	133	----	----	----
May	55,244	3,351	133	127	----	----	----
June	62,233	2,068	117	67	----	----	----
July	34,280	2,490	81	44	----	----	----
August	49,588	3,388	156	116	----	----	----
September	73,117	4,902	417	249	----	----	----
October	77,616	6,997	216	482	----	----	----
November	74,055	7,334	339	412	----	----	----
December	79,344	11,502	684	1,806	1,279	1,133	300
Total	858,537	70,330	3,215	5,048	1,279	1,133	300

Month	Pitkin	Rio Blanco	Routt	San Miguel	Weld	Total
January	410	944	83,920	----	213,209	762,239
February	707	646	63,498	----	160,219	599,171
March	175	489	52,592	----	162,124	552,904
April	----	338	7,662	----	66,845	275,701
May	----	147	6,969	----	35,433	206,853
June	----	239	18,152	----	32,213	210,129
July	----	208	18,438	----	35,503	176,195
August	----	271	35,733	----	50,111	275,860
September	----	438	79,994	----	112,669	530,101
October	210	745	76,000	----	166,627	648,832
November	150	884	51,180	----	187,452	599,932
December	200	1,929	80,115	832	247,625	778,608
Total	1,852	7,278	574,253	832	1,470,030	5,616,525

PRODUCTION BY COUNTIES BY MONTHS, 1933

Month	Adams	Arapahoe	Archuleta	Boulder	Delta	Elbert	El Paso
January----	----	----	----	68,456	6,364	449	37,649
February----	----	----	----	70,155	6,361	519	37,383
March----	----	----	----	38,082	2,312	368	30,756
April----	----	----	----	29,942	3,003	191	25,281
May----	----	----	----	15,759	2,304	117	19,119
June----	----	----	----	6,808	632	52	11,571
July----	----	----	----	8,346	3,846	----	12,212
August----	----	----	----	23,984	3,341	54	14,796
September----	----	----	----	58,997	4,091	207	20,707
October----	----	----	----	51,855	4,077	746	23,756
November----	----	----	----	38,914	4,316	665	29,988
December----	311	180	757	55,793	5,274	833	36,609
Total----	311	180	757	467,091	45,921	4,201	299,827

Month	Fremont	Garfield	Gunnison	Huerfano	Jackson	Jefferson	La Plata
January----	39,526	3,944	35,841	49,456	2,264	12,219	2,888
February----	44,542	2,286	35,625	52,792	3,532	11,388	2,854
March----	19,900	1,598	23,240	24,971	1,475	10,577	1,608
April----	15,326	1,472	16,130	28,233	1,707	9,532	1,255
May----	22,057	1,512	31,372	38,936	1,547	8,285	1,642
June----	9,070	1,125	15,445	28,187	90	7,992	1,175
July----	16,188	1,774	21,385	24,863	534	9,567	966
August----	28,528	1,365	47,401	58,716	1,145	10,207	1,775
September----	44,949	1,910	48,084	67,415	3,117	11,919	3,038
October----	39,011	2,312	49,404	72,198	3,622	14,874	3,128
November----	35,714	3,183	43,764	71,088	3,467	17,728	2,957
December----	37,782	5,306	37,982	64,203	5,507	18,755	4,307
Total----	352,593	27,787	405,673	581,058	28,007	143,043	27,593

Month	Larimer	Las Animas	Mesa	Moffat	Montezuma	Montrose	Ouray
January----	832	68,464	9,178	192	674	----	----
February----	772	84,800	8,690	159	381	----	----
March----	394	74,839	4,935	23	150	----	----
April----	226	58,648	4,298	39	217	----	----
May----	328	42,604	3,030	17	167	----	----
June----	----	39,237	1,862	----	137	----	----
July----	----	41,865	4,342	----	101	----	----
August----	26	79,961	6,175	----	237	----	----
September----	215	90,218	5,817	273	374	----	----
October----	443	100,849	7,206	157	640	----	----
November----	769	87,189	9,321	1,458	619	----	----
December----	1,305	88,616	12,071	2,605	1,969	1,447	407
Total----	5,310	857,290	76,925	4,923	5,666	1,447	407

Month	Pitkin	Rio Blanco	Routt	San Miguel	Weld	Total
January----	205	925	39,462	----	176,652	555,640
February----	200	846	59,100	----	196,485	618,870
March----	101	506	15,244	----	131,925	383,004
April----	52	393	11,707	----	105,229	312,881
May----	30	395	32,820	----	70,400	292,441
June----	65	225	24,935	----	39,721	188,329
July----	66	169	19,878	----	42,179	208,281
August----	60	264	33,554	----	71,712	383,301
September----	229	549	79,737	----	143,854	585,700
October----	301	783	67,811	----	142,461	585,634
November----	150	773	43,214	----	160,347	555,624
December----	215	1,155	41,076	1,389	189,313	615,167
Total----	1,674	6,983	468,538	1,389	1,470,278	5,284,872

PRODUCTION BY COUNTIES BY MONTHS, 1934

Month	Adams	Arch- uleta	Boulder	Delta	Elbert	El Paso	Fremont
January----	----	----	53,623	4,219	510	35,695	37,212
February----	----	----	52,114	2,570	440	32,804	31,053
March----	----	----	45,573	1,975	454	32,737	27,557
April----	----	----	25,312	2,095	159	21,991	14,020
May----	----	----	17,567	515	111	14,248	8,950
June----	----	----	16,012	442	103	12,171	8,898
July----	----	----	11,546	2,574	40	11,493	10,519
August----	----	----	21,738	2,150	91	15,245	22,750
September----	----	----	55,039	4,414	268	22,815	41,126
October----	----	----	48,404	5,948	502	24,552	47,628
November----	----	----	50,976	4,617	572	30,452	48,198
December----	421	917	64,710	7,154	2,747	39,059	65,892
Total---	421	917	462,614	38,673	5,997	293,262	363,803

Month	Garfield	Gunnison	Huerfano	Jackson	Jefferson	La Plata	Larimer
January----	2,794	34,332	54,588	1,879	15,476	2,169	679
February----	1,777	23,058	42,099	2,667	13,798	1,714	392
March----	1,628	30,150	52,599	2,186	11,732	1,625	377
April----	2,055	17,657	31,934	1,687	10,040	1,189	119
May----	1,572	30,370	43,366	1,287	8,834	1,055	10
June----	1,543	14,851	17,694	866	8,618	988	----
July----	1,041	21,606	29,568	918	9,215	810	----
August----	1,850	46,210	50,143	943	10,307	1,334	----
September----	2,569	54,989	63,757	3,110	10,991	2,106	330
October----	2,642	70,656	88,824	2,969	11,363	3,162	401
November----	3,556	45,014	64,663	3,074	11,679	2,462	504
December----	4,855	59,048	68,389	3,072	14,755	5,074	889
Total---	27,882	447,971	607,624	24,658	136,808	23,638	3,701

Month	Las Animas	Mesa	Moffat	Monte- zuma	Mont- rose	Ouray	Pitkin
January----	80,094	7,370	164	1,383	----	----	162
February----	68,550	4,609	116	749	----	----	118
March----	67,811	4,858	92	503	----	----	93
April----	60,873	2,943	89	202	----	----	32
May----	63,187	2,123	45	254	----	----	28
June----	54,945	2,185	55	167	----	----	22
July----	61,282	3,516	37	309	----	----	17
August----	75,104	4,357	54	481	----	----	44
September----	80,588	6,227	158	676	----	----	173
October----	85,523	7,733	125	555	----	----	82
November----	80,982	6,792	140	686	----	----	190
December----	84,533	10,004	2,247	1,482	1,444	796	132
Total---	863,472	62,117	3,322	7,447	1,444	796	1,093

Month	Rio Blanco	Routt	San Miguel	Weld	Total
January----	746	43,513	----	157,281	533,889
February----	520	29,203	----	151,706	459,487
March----	419	26,445	----	130,523	439,337
April----	270	15,234	----	82,947	290,848
May----	212	10,958	----	48,697	253,389
June----	186	15,467	----	40,050	195,213
July----	125	6,877	----	49,547	221,040
August----	227	22,767	----	59,252	335,047
September----	467	77,071	----	155,735	582,609
October----	631	95,182	----	140,292	637,174
November----	761	64,768	----	165,888	585,974
December----	1,350	84,396	1,378	192,252	716,996
Total---	5,914	491,881	1,378	1,374,170	5,251,003

SHOWING COMPARATIVE ANNUAL PRODUCTION BY COUNTIES 1931-1934

Counties	1931	1932	1933	1934
Adams	-----	-----	311	421
Arapahoe	-----	290	180	-----
Archuleta	1,106	751	757	917
Boulder	499,133	571,534	467,091	462,614
Delta	60,202	50,809	45,921	38,673
Elbert	3,136	4,299	4,201	5,997
El Paso	345,978	313,599	299,827	293,262
Fremont	347,356	357,987	352,593	363,803
Garfield	30,447	33,444	27,787	27,882
Gunnison	404,209	404,714	405,673	447,971
Huerfano	975,397	678,492	581,058	607,624
Jackson	44,298	43,482	28,007	24,658
Jefferson	140,374	132,380	143,043	136,808
La Plata	31,662	25,978	27,593	23,628
Larimer	1,914	4,679	5,310	3,701
Las Animas	1,333,999	858,537	857,290	863,472
Mesa	92,679	70,330	76,925	62,117
Moffat	3,953	3,215	4,923	3,322
Montezuma	4,985	5,048	5,666	7,447
Montrose	1,143	1,279	1,447	1,444
Ouray	1,742	1,133	407	796
Pitkin	10,175	1,852	1,674	1,093
Park	200	300	-----	-----
Rio Blanco	7,947	7,278	6,983	5,914
Routt	574,211	574,253	468,538	491,881
San Miguel	1,504	832	1,389	1,378
Weld	1,686,313	1,470,030	1,470,278	1,374,170
Total	6,604,063	5,616,525	5,284,872	5,251,003
Decrease	-----	-----	-----	-----

COAL PRODUCTION IN COLORADO FROM 1873 TO 1934, INCLUSIVE

Year	Tons	Year	Tons
1873	69,977	1904	6,776,551
1874	87,372	1905	8,989,631
1875	98,838	1906	10,308,421
1876	117,666	1907	10,965,640
1877	160,000	1908	9,773,007
1878	200,630	1909	10,722,490
1879	322,732	1910	12,104,887
1880	375,000	1911	10,197,595
1881	706,744	1912	11,016,948
1882	1,161,479	1913	9,268,939
1883	1,220,593	1914	8,201,423
1884	1,130,024	1915	8,715,397
1885	1,398,796	1916	10,522,185
1886	1,436,211	1917	12,515,305
1887	1,791,735	1918	12,658,055
1888	2,185,477	1919	10,406,543
1889	2,400,629	1920	12,514,693
1890	3,075,781	1921	9,141,947
1891	3,512,632	1922	10,003,610
1892	3,771,234	1923	10,336,735
1893	3,947,056	1924	10,501,088
1894	3,021,028	1925	10,440,387
1895	3,339,495	1926	10,616,760
1896	3,371,632	1927	9,781,580
1897	3,565,660	1928	9,921,585
1898	4,174,037	1929	9,934,064
1899	4,826,939	1930	8,238,094
1900	5,495,734	1931	6,604,063
1901	6,021,405	1932	6,616,525
1902	7,522,923	1933	5,284,872
1903	7,775,302	1934	5,251,003

LIST OF FATAL ACCIDENTS WHICH OCCURRED IN THE
COAL MINES OF COLORADO, 1931

January 2—HERMAN GRANT, American (colored), driver, experience 25 years, age 41 years, married, four children, employed by the McNeil Coal Corp. at the Cameo mine, Mesa County, was injured by being kicked by a mule on December 31 and died two days later. The deceased was riding on the front end of a loaded car which was being pulled by a mule; a tail chain was being used and each car wheel had a sprag. When he was coming out of an entry one of the sprags broke causing the car to run faster and crowding the mule. The deceased remained on the front end of the car trying to keep the mule in the clear. There was sufficient clearance on both sides of the track and it is not known why he did not get off the car when the sprag broke. He stated to the mine foreman that he was in the act of putting up his foot on the rear of the mule to restrain the car from running too close to the mule when he was kicked. The deceased was considered a good driver, with years of experience. The accident might have been avoided had the deceased got off the car when the sprag broke, as there was plenty of clearance at this point, and would have been avoided if deceased had ridden on the rear end of the car.

January 5—SALVADOR LOPEZ, Mexican, pick miner, experience a year and six months, age 20 years, single, employed by the Colorado Fuel and Iron Co. at the Pictou mine, Huerfano County, was killed by a fall of draw rock. Deceased and his partner were working on a room pillar and had loaded about two cars when the draw rock along the face of the pillar where they had extracted the coal fell on him, killing him instantly. This place was not well timbered, as the distance from the track to the line of the coal face was eight feet, without any props being set. This accident probably would have been avoided had there been some props set, as the draw rock was not very thick—about eight inches. The accident may be charged to the poor judgment of the miners and to the mine foreman, who did not see that these men were not timbering according to his instructions, as he had visited the place about 4 a. m. and the accident occurred at 10 a. m.

January 7—THOMAS STRUTHERS, Scotch, mine foreman, experience 54 years, age 67 years, married, six children, employed by the Victor-American Fuel Co. at the Delagua mine, Las Animas County, was squeezed between a car and door frame on the sixth and died the following day from the effects of injury. At the time of the accident the deceased was acting as nipper for the motorman. He opened a trap door for the loaded trip to back so that they could pick up some more loaded cars that were in the back entry. After deceased had coupled three cars to the trip he flagged the motorman to pull out of this place. At this point it is necessary to set the last three brakes on the trip as it pulls out. In doing this the deceased was caught between the car and the door frame

and was rolled about, injuring him so severely that he died the next day. It is not known whether his clothing was caught on the car or unknowingly while setting the brakes he backed into the door frame and was caught. The accident is classed a misadventure for which no one can be blamed.

January 15—DANIEL TINOCO, Mexican, pick miner, experience nine years, age 27 years, married, one child, employed by the Colorado Fuel and Iron Co. at the Kebler No. 2 mine, Huerfano County, was killed by a rope trip. The deceased had finished work for the day and started to walk out to the main slope to the man trip station. He worked in the fifth panel and before he reached the fourth panel the trip that was being dropped from the fifth panel overtook him, striking him and killing him instantly. He did not hear this trip coming as the hoist at the fourth level panel was running at the time and the noise from it prevented him hearing the approaching trip. At the point where deceased was struck there is a double track and there was plenty of clearance to get out of the way. The accident was unforeseen and is classed as unavoidable.

February 17—CHARLES MADDONA, Italian, blacksmith, experience 11 years, age 43 years, single, employed by the Rocky Mountain Fuel Co. at the Standard mine, Boulder County, was injured January 7 by a tool striking his head and he died from its effects on the above date. At the time of the accident the deceased raised the apron on the chute preparatory to loading coal into a truck, when in some manner the handle of the windlass slipped from his hand and whirled around, striking his forehead and causing a severe laceration. This was dressed immediately by the doctor in the mine office and he returned to work to finish the shift. He continued to work for several days, but on February 3 he took very ill, complaining of a severe headache. He was taken to a hospital, where he died. The accident was a misadventure for which no one could be held responsible.

March 9—TONY JAMES, Italian, machine miner, experience 38 years, age 52 years, married, one child, employed by the Rocky Mountain Fuel Co. at the Grant mine, Weld County, was killed by a fall of top coal from side of entry. Deceased and his partner were cleaning up a fall of top coal in an entry and while loading the ninth car another fall occurred, striking deceased in such manner that it forced him over the car, killing him instantly. The seam is from nine to 10 feet thick, $3\frac{1}{2}$ feet being left for roof. This top coal is cut in center of places until it reaches the roof proper, thus leaving the sides hanging over. In some instances they are secured by braces, but generally no supports are used. The accident might have been avoided had the sides been braced or timbered in advance of the fall. The mine foreman had visited the place fifteen minutes prior to the accident. The responsibility for the accident is placed jointly on the management and deceased.

March 11—F. G. MERRITT, English, machine miner, experience 25 years, age 60 years, married, four children, employed by the Leyden Lignite Co. at the Leyden mine, Jefferson County, was killed by a fall of rock and coal. Deceased and partner were cleaning up a fall of coal at neck of room. They had sounded the roof and considered it safe just a few minutes before the fall and the mine foreman had just left the place when, without warning, rock and coal fell striking deceased. Apparently a bump occurred in close proximity which jarred the rock and coal loose. The accident is classed as unavoidable.

March 21—HOWARD ELLIOTT, American, electric machine runner, length of experience not known, age 31 years, married, two children, employed by the Blue Bird Mines, Inc., Jefferson County, was severely injured March 17 and died on the above date. Deceased and partner were moving an electric shearing machine from face of upper slope to a room by means of coupling it to the rear end of two empty cars and drawn by the hoisting engine. Partner was riding on front end of the machine when about 75 feet from the face the haulage rope broke. When this occurred the empty cars and machine started backwards and down the slope, throwing deceased off and he was caught by the cars as they went by, injuring him so severely that he did not recover. The slope is driven on a $33\frac{1}{3}\%$ pitch. The haulage rope was of steel wire and upon examination showed many broken wires in strand due to wear. There was no drag on the machine. The accident was due to using a worn out rope, the omission of a drag being used when hauling the machine up the slope and the deceased riding on it. The responsibility is charged jointly to the management and deceased.

April 1—HERBERT SHAW, assistant mine foreman, experience not given, age 52 years, married, five children, employed by the Colorado Fuel & Iron Co. at the Frederick mine, Las Animas County, was injured by being caught between car and rib on March 24, 1931, and died on the above date. Deceased was traveling with the regular man-trip of 12 cars on the main haulage road to the 18th west where 10 empty cars were left standing on the main haulage road from the previous day. In order to pass, these cars had to be switched, so deceased walked ahead to the front of the empty cars and boarded same apparently to switch them when in some manner the front car became derailed about 30 feet from the switch and came in contact with the right hand rib of the entry and he was flung between it and the car and injured so severely that he died on the above date. Deceased stated that he did not know what caused the car to derail. The track was found to be in good condition, clear of obstructions and there was sufficient clearance on both sides of the track. The accident was a mishap and is classed as unavoidable.

April 14—JULE GILLETT, American, nipper, experience not given, age 39 years, married, two children, employed by the Calu-

met Fuel Co. at the Calumet No. 2 mine, Huerfano County, was injured on the 11th of April by being caught between haulage motor and door frame and died on the above date. There is a door on the fourth north entry inby dip entries, and parting switch starts three feet inby door. The motor went into this parting to pick up two loaded cars to complete the trip and had pulled in on the empty track alongside the loads, placed a tie against front end of motor and rear end of loads and gave them a shove so that they would run past the parting switch. Deceased then followed the loads and called to the motorman to come on and upon arriving at the door found that the rear end of the last car had it blocked so that he could not get through and before he could step back in the clear the motor caught him against the door frame and crushed him, causing injuries from which he died. There is not sufficient clearance between top of motor and roof for the motorman to see ahead. The company is held responsible for this accident on account of improper and dangerous method used in switching these cars. A recommendation has been made that all switching must be done with the cars securely coupled to the motor so that they can be kept under control at all times.

May 16—MANUEL GOMEZ, Mexican, pick miner, experience 21 years, age 48 years, widower, no children, employed by the Torrid Coal Co., Torrid mine, Huerfano County, was killed by a fall of draw slate. Deceased was working single in a room and there were no eyewitnesses to the accident. This room has about 18 inches of draw rock over the coal, making a bad roof condition. The place was well timbered, but while digging coal at the face an invisible slip in the draw rock was uncovered and the rock, being relieved, swung out the roadhead prop and fell on deceased, killing him instantly. The accident was unforeseen and is classed as unavoidable.

July 2—THERON GARDNER, American, coal dumper, experience 20 years, at coke plant, age 51 years, married, two children, employed by the American Smelting & Refining Co. at the washer of the Cokedale Coke Plant, Las Animas County, was injured May 19 by having his left arm caught between belt and pulley of coal crusher and died on the above date from the effects of same. According to statement of deceased, he was attempting to remove some fine coal dust which had accumulated on the pulley driving the crusher for the washer while the machinery was in motion. In some manner he slipped and his hand fell on the belt, carrying his arm over the pulley to the framework, crushing his arm badly. It was an error of judgment to attempt cleaning the pulley while the machinery was in motion and it was also against the rules of the plant.

July 2—DAVID JACKSON, American, fire boss, experience 35 years, age 51, married, two children, employed by the Bear Canon Coal Co. at the Bear Canon No. 6 mine, Las Animas County,

came to his death by the exploding of detonators which he was carrying loose in his pocket and which was started off by a local gas explosion. Deceased was acting as shotfirer at the time of the accident and had tamped and lit two shots in room No. 11, then went to room No. 13 and lit one shot there and was on his way out when the shots in No. 11 room went off. One of them was a blown-out shot, which undoubtedly set off an accumulation of gas in the high point gob side of room No. 11 causing a local explosion and exploded the detonators in deceased's pocket.

RECOMMENDATIONS:

Gentlemen:

The following important recommendations, made by Chief Inspector James Dalrymple, following investigation of explosion at the Bear Canon No. 6 mine on August 12, 1931. These recommendations to take the place of former recommendations.

(1) That all stoppings between main intake and main return, in all cross entries over 500 feet in length from which rooms are worked and in all cross entries from which panel entries are worked, be built of concrete or of stone, brick or tile laid in mortar cut into the sides, top and bottom. This includes all such places already driven as well as such places driven in the future. In ascertaining the 500 feet, part of it may be cross entry and part panel entry. See Section 136 of the Coal Mining Laws.

(2) That all connections between intakes and returns not being used for haulage be closed by permanent stoppings with a small door in stopping where required and in all such connections used for haulage by substantial double doors.

(3) That all cross cuts, except the inside one, be closed. This includes room cross cuts, and 60 feet shall be the maximum distance between all cross cuts.

(4) That all holes drilled must not be less than 12 inches from rib.

(5) That on account of the limited number of shots fired, shooting may be done by fire boss in the morning before making fire boss morning examination. This may be stopped at any time because of inadequate ventilation or material increase in number of shots to be fired by the Deputy State Coal Mine Inspector.

(6) That fuse igniters may be used to fire shots, subject to cancellation by the Deputy Inspector for cause.

(7) That all flame safety lamps must be magnetically locked when in use underground and when testing for gas normal flame shall not be allowed.

(8) That all weekly air readings must include readings taken in last cross cut in each separate split or section and properly recorded in book kept for that purpose.

(9) That fire boss examinations of mine and recording of same shall be done according to Sections 63 and 65 of the Coal Mining Laws.

NOTE: Recommendation No. 6 prohibits all other means of firing shots except by electric batteries.

Recommended and approved by

JAMES DALRYMPLE,

State Inspector of Coal Mines.

August 12—LOUIS LÉLOGE, French, motor nipper, experience four years, age 27 years, single, employed by the Temple Fuel Co. at the Brodhead No. 9 mine, Las Animas County, was injured on August 11 by being caught between pit cars and rib and died from the injuries sustained on the above date. According to evidence given by the motorman, deceased and partner had loaded 20 cars and backed 10 cars into the 11th south parting, which has a grade of 1% for a distance of 120 feet then dipping $4\frac{1}{2}\%$ for a considerable distance into the parting. He also stated that he backed the motor into the trip to take same to the main slope. He saw deceased between third and fourth cars. When coupled the trip to his five-ton motor it could not pull the load and the trip backed down the $4\frac{1}{2}\%$ grade with deceased between the cars. Deceased stated that he struck his head against the roof, knocking him off the trip and he fell between the rib and cars, crushing him fatally. The distance between rail and rib where he was found is three feet two inches. The motorman said that he had been instructed by the mine foreman not to switch loaded cars into the 11th south entry on account of this grade but to switch into the 13th north entry. This being true, the motorman disobeyed instructions and is partly responsible for the accident.

August 12—ERNEST FRAZY, Italian, machine miner, experience 33 years, age 53 years, married, one child, employed by the Colorado Fuel & Iron Co. at the Robinson No. 4 mine, Huerfano County, was injured on August 11 by a fall of top rock and died from its effects on the above date. Deceased and his partner were working in a room, they had finished their lunch and before starting to work again deceased tested the roof and found some loose top rock eight feet from the face between rib and roadway. He used a wedge to take this down and then tested the roof again and told his partner that it was "solid." He began to work at the face, trimming it down to square up. In doing this he released an invisible slip along the coal face which allowed rock to fall on him, causing death 14 hours later. The mine foreman had visited the place at 8:30 a. m. and accident occurred at 12:30 p. m. It was unforeseen and is classed as unavoidable.

August 24—STEVE SEPCHIEFF, Bulgarian, pick miner, experience 15 years, age 35 years, single, employed by the Castle Rock Coal Co. at the Castle Rock mine, Gunnison County, was

injured by falling on a burning slack dump on August 19 and died from the effects of same on the above date. Deceased was dumping a car of slack coal on the outside of the mine on a dump when the trestle on which he was standing collapsed, dropping him on the burning coal dump. He managed to crawl off the dump and, as there was no assistance at hand, drove his automobile four miles for medical care. He was taken to the Salida hospital, where he died. Very poor judgment was shown in building a trestle over a slack dump subject to combustion, also the dump had been burning for some time and no doubt had weakened the supports of the trestle. Deceased should have known that the trestle was not safe. Recommended that a track be laid along the hillside on the solid ground and the slack dumped from this track. A trestle then will not be necessary. Also no slack be dumped within 300 feet from the mine opening.

September 18—JOHN B. VERCELLONO, Italian, pick miner, experience 25 years, age 62 years, married, seven children (all grown), employed by the Rocky Mountain Fuel Co. at the Industrial mine, Boulder County, was injured August 14 by a fall of pot rock from the roof and died on the above date. Deceased was working helping to load coal into a pit car when the pot rock fell from roof and struck him, injuring him so seriously that he had to be taken to a hospital, where he died. The mine foreman visited the place just one hour prior to the accident. Deceased was a good, practical miner who always kept his place in good condition. The accident was unforeseen and is classed as unavoidable.

October 3—ANDREAS HERNANDEZ, Mexican, pick miner, experience four years, age 23 years, married, no children, employed by the Victor-American Fuel Co. at the Delagua mine, Las Animas County, was injured September 4 by a fall of rock and died on the above date. Deceased and his partner were working on a chain pillar and he accidentally struck a prop with his shovel, knocking it out and released a rock which fell on his back. The place was well timbered and the accident was due to a misadventure. The place had been visited by the fire boss three hours prior to the accident.

October 6—ARTHUR McSHANE, American, machine miner, experience 40 years, age 55 years, single, employed by the Bluff Springs Leasing Co. at the Bluff Springs No. 2 mine, Fremont County, was injured September 29, 1931, by a fall of top rock and died on the above date. Deceased was working on the face of room about 10 feet left of roadway when an invisible slip gave way, catching him and resulting in death eight days later. The slip fell between two props set four feet apart. The accident is classed as unforeseen and unavoidable. The present roof consists of rotten slate and is full of slips. A new timbering agreement is drawn up to take care of this condition. The mine foreman had visited the place about 30 minutes prior to the accident.

October 12—FOSTER RANSON, JR., American, machine miner, experience two years, age 23 years, single, employed by the Bluff Springs Leasing Co. at the Bluff Springs No. 2 mine, Fremont County, was killed by a fall of top rock. Deceased was working on face of room about 12 feet left of roadway turning back coal when an invisible slip gave way, catching him and causing instant death. The place was well timbered and the accident is classed as unavoidable. The place had been visited by the mine foreman about 15 minutes prior to the accident.

October 22—GEORGE NANKOFF, Bulgarian, machine miner, experience 16 years, age 40 years, employed by the Hayden Coal Co. at the Hayden No. 3 mine, Routt County, was caught between pit car and prop and died three hours later from the effects of the injury. A partner of deceased had pulled, with a hoist, a trip of three empty and one loaded cars. When the trip reached the entry where deceased was standing he stepped on the bumper of the first empty car while it was in motion and in some way was caught between the car and prop. This accident could have been avoided had the rule of having $2\frac{1}{2}$ feet clearance on the mechanical haulage been complied with. As it was, the clearance at the time of accident was only one foot between rail and prop and only four inches between the side of car and prop. The management has agreed to widen the clearance as prescribed by law as soon as it is possible. The responsibility of the accident is charged to the neglect of the company.

October 23—SAM DiGACOMO, age 48 years, LORENZO DiGACOMO, age 16 years, and FRANK LAPENNA, age 26 years, were killed by a gas explosion at the Old Ferrell mine, located in Las Animas County, on the above date. The deceased, with Dan Scappucci and Nick Spagnoli, had entered the Old Ferrell mine, which had been abandoned for some time, with open lights. Dan Scappucci urged his fellow men not to proceed into this gas-filled mine, he going out, the others had advanced to a point about 700 feet from the mine portal, where the explosion occurred, killing three instantly and badly burning Nick Spagnoli, who was rescued and taken to the hospital. As these men were trespassers and had no right to enter a mine which was properly blocked off, these deaths are not charged to the industry.

November 9—NORFIO GALLINA, Italian, pick miner, experience 35 years, age 56, married, four children, employed by George Fruth at the New Fruth mine, Huerfano County, was instantly killed by a runaway mine car. Deceased and his partner were working night shift sinking the main slope, which is about 250 feet in length and pitches about 30%. Deceased was drilling a hole on the left rib about 10 feet back from the face when an empty car got beyond control of the men on the tippie, ran down the slope and struck him. The rope rider and hoistman handle all the haulage and they had been in the habit of dumping the car,

then pushing it back to the knuckle and spragging it there before attaching the cable. It was raining at the time of accident and the rails were wet, the car was pushed to the knuckle and spragged but, the rails being wet, the sprag did not hold it and it went over the knuckle and ran into the mine. The management is held responsible for this accident as there was no safety device of any kind installed to prevent cars from running away. Contributing cause was the unsafe method of handling cars on the tippie. Both haulage men are young and inexperienced.

LIST OF FATAL ACCIDENTS WHICH OCCURRED IN THE COAL MINES OF COLORADO DURING THE YEAR 1932

January 15—CARL E. GABALDON, Spanish, machine runner, experience 18 years, age 38 years, married, six children, employed by the Calumet Fuel Co., Calumet No. 1 mine, Huerfano County, was killed by a fall of coal and draw slate. The accident occurred in room 8 off eighth south entry, while deceased was working with W. J. Temple, a machine helper. This room had not been working for seven years prior to accident and while making the first mining a fall of coal and draw slate took place, principally coal weighing about two tons. The machine was idle when the fall took place from the face and W. J. Temple testified that both deceased and himself tested the face by sounding it with a pick before starting to undermine and considered it safe and that the fall gave no warning. Mr. Perry Storey, a coal loader, testified that he cleaned the place up and took down all loose coal and rock just before the machine started cutting and he considered the place safe. Both of the above witnesses considered the accident as unavoidable. The place was visited by the mine foreman at 8:00 a. m. and the accident occurred at 1:00 p. m. It is my opinion that during the seven years which the place had been idle that sufficient weight or pressure had caused the coal to crack beyond the face, probably in such a large piece that it was not detectable by sounding with a pick, and that the accident was therefore unavoidable.

February 1—LOUIS SAKRADIA, Siberian, machine miner, experience 15 years, age 37 years, married, one child, employed by the Boulder Valley Coal Co. at the Boulder Valley mine, Weld County, was crushed under a loaded pit car on January 30, 1932, and died on the above date. Deceased and two partners were extracting a chain pillar and remaining blocks, cutting and hauling their own coal. The working face at point of accident is 25 feet deep, driven in the block and the grade is about 2% in favor of the loaded car in the working place and level on the main entry. Deceased was hauling the coal from the face with a mule, riding the front end standing on the bumpers, with one hand on the bumpers and holding on to the car with the other. When about 45 feet outby on the entry some mishap occurred and deceased either fell or was thrown off the car, landing in the center of the track, where

the car ran over him, causing injuries which resulted in his death about two days later at the Longmont Hospital. At the point of accident there was sufficient height above the loaded car and about 2½ feet unobstructed clearance on both sides of the car. One sprag was in the car wheel and the deceased was an experienced driver. The accident was a misadventure for which no one could be held responsible.

February 6—SOLAN OTIS CARTER, American, pick miner, experience six years, age not given, married, one child, employed by the Delisa Canon Coal Co. at the Cuckoo mine, Fremont County, was injured at the roadhead by a fall of rock on January 21 and died on the above date. A brushing shot had been fired in the roof the night before the accident and the debris was cleared up and used as building material for side walls of road. The rock that fell on deceased was made in the roof by the brushing shot and came down while he was loading a car with coal. The mine foreman and another man were within a few feet of deceased and testified that the rock fell without warning and that the roof had been tested about half an hour before it fell and was considered safe. Three weeks having passed between date of accident and investigation and the working place had advanced 50 feet, so there was no way to determine what the condition of the roof was at that time. A well-defined smooth slip from which the rock fell is still in evidence. This would uphold the testimony that the rock fell without giving any warning. The accident is classed as unforeseen and was unavoidable.

February 10—ARCHIE GOODHEAD, American, mule driver, experience 18 years, age 42 years, married, two children, employed by John D. Cribbs at the Rockvale No. 2 mine, Fremont County, came to his death by falling in front of a loaded car. Deceased was an experienced mule driver and was employed in such capacity in the ninth south entry with several other drivers. The inside drivers always stopped on their way out at a point inside of third dip until the third dip drivers came in. There is a trap door just inside of this with a door attendant who used to whistle to the inside drivers when the third dip drivers had passed in. Deceased, with mule and two loaded cars, had waited at the regular stopping place and the door attendant whistled twice to deceased to start out with his trip and, getting no answer, he went to see what was wrong and found the front loaded car derailed and deceased under it dead. The drivers use what is known as the shafts and guns in place of tail chains, the gun is fastened to the shafts at one end and the other end is fastened to the drawbar of the car. Both connections are made by drop bolts. Four witnesses testified that when they arrived at the place of accident they found the front end of gun disconnected from shaft. What caused this break is not known. It is probable that deceased, in riding front end of trip, had hold of the car with one hand and held the gun with the other and on which he was leaning and that when the disconnection occurred, the

gun dropped down far enough to cause him to lose his balance and fall in front of the car, which ran over him. This was a peculiar mishap and for which no one could be held responsible.

February 29—ANGELO MICHELETTI, Italian, pick miner, experience 25 years, age 54 years, married, no children, employed by the Torrid Coal Co. at the Torrid mine, Huerfano County, was killed by a fall of rock. Deceased and partner were working in a room and had put in a short mining and were about to take down the coal when a pot rock from the roof gave way from a slip close to face of coal. The roof had been tested a few minutes prior to accident and found safe. The last prop set by deceased was about three from the face of coal and on the outside edge of slip of rock and when rock gave way from roof it broke eight inches over the face of the coal. The place was well timbered and the accident is classed as unavoidable.

March 9—ELOY ROMERO, Mexican, pick miner, experience 12 years, age 26 years, married, two children, employed by the Temple Fuel Co. at the Brodhead No. 9 mine, Las Animas County, was killed by fall of rock. Deceased was working on the right side of a room on the butts, which was about 10 feet from room face, and was loading coal on the left side and when the car was about one-third full a large rock, from between two slips paralleling each other, fell between the props. The room was driven west and the slips running north and south, this making the roof very dangerous, which is also heavily saturated with moisture. The place was well timbered, carrying two props on each side of place and two roadhead props and the average distance between props was three feet. Deceased was working alone and was found dead under the rock. Mine foreman had visited the place two hours prior to the accident. This accident was unforeseen and is classed as unavoidable.

March 19—JAMES AVILA, Mexican, machine miner, experience two years, age 21 years, single, employed by the Boulder Valley Coal Co. at the Boulder Valley mine, Weld County, was killed by a fall of rock. Deceased and his partner (his father) were driving a break-through in a room pillar. The place was driven about eight feet wide and six feet high to the rock roof, and timbered with cross bars with a leg under each cross bar, which were three feet apart. They were cleaning up the place preparing it for the electric machine so that the cutting could be done. The temporary roadhead prop had been replaced with a cross bar about 3½ feet back from the face and while deceased was picking down a small slab of coal, a rock gave way from a well-defined but invisible slip which ran along the inside edge and parallel with the cross bar. It fell on deceased and killed him instantly. The mine foreman had visited the place an hour before the accident and tested the roof and did not detect any looseness in rock. Partner stated he, too, had tested the roof a few minutes before it fell and it sounded solid. The accident was unforeseen and is classed as unavoidable.

March 23—JOSEPH NEWELL, American, pick miner, experience 12 years, age 28 years, married, one child, employed by John D. Cribbs at the Rockvale No. 2 mine, Fremont County, was injured by a fall of coal on the 22nd of March and died the following day. A shot had been fired by the shot-firer about 12 feet from the roadhead. Deceased returned to the face and after attempting to pull the tail end of the shot down and not succeeding he proceeded to load a car and while doing this the top coal broke loose, striking him and causing such injuries that he died as above stated. The place had been visited by the mine foreman at 8:00 a. m. The accident is classed as unavoidable.

April 16—JOHN McKENNA, Scotch, machine miner, experience 38 years, age 46 years, married, one child, employed by the Victor-American Fuel Co. at the Chandler mine, Fremont County, came to his death by electrocution. The accident took place in a back entry which made considerable water, requiring pumping three times a day. The company pumped the water in the morning before the men entered, but the rest of the pumping was done by the miners during the day. There were no eyewitnesses to the accident. Apparently, deceased started the pump and in throwing the lever of starting box forward he slipped or lost his balance and fell over the pump between the motor and starting box. His right hand was on the brushes and his left hand on the bottom in front of him, grasping a piece of wood, and his body was wedged in between starting box and motor. The clothes and shoes he wore were wringing wet, the ground surrounding the pump was dry. The current is DC, 225 volts, the rails being the return and deceased may have been standing on rail when starting the pump, which had the result of intensifying the shock. Had the lever on the starting box been arranged to pull back from the pump instead of forward to start it the accident in all probability would not have happened. The management agreed to change all their pumps with the above suggestion. No one is held responsible for the accident.

April 21—ROBERT M. SMITH, American, motorman, experience 31 years, age 47 years, married, one child, employed by the Temple Fuel Co. at the Brodhead No. 9 mine, Las Animas County, was killed by striking his head against a cross bar. Deceased left an entry with a light motor to get some loaded pit cars from stumps and pillars in another entry and bring them to the main parting. About 15 minutes later he was found dead between rib and motor. The entry had a grade of $1\frac{1}{2}\%$ to the point where deceased was found. It appeared that he had coasted the motor for that distance, as there was no power on motor. Seventeen feet from where the body was found the low cross bar which apparently caught deceased is but three feet six inches from rail to cross bar, which leaves but four inches of clearance for motor. This entry is low and has never been brushed. In general, the cross bars are about four feet above rail. It is a bad roof and the management is double shifting the places so as to get out of this district as soon as pos-

sible. Upon examination of the low cross bar it was disclosed that someone had come in contact with it, it being two or three inches lower than the balance of cross bars alongside of it. It was recommended that all cross bars be removed wherever possible and that the stumps and pillars be removed as soon as possible by double shifting. Accident is classed as unavoidable.

May 13—JAMES DARR, American, pick miner, experience 30 years, age 47 years, married, three children, lessee of the Happy Canon mine, Montrose County, and—

WILLIAM DARR (nephew of above), American, pick miner, experience one year, age 24 years, single, employed by above, came to their death by "carbon monoxide poisoning" caused by a gasoline engine which was installed inside of the mine. Darr and his nephew opened the Happy Canon mine in March, 1931, and drove a rock slope about 250 feet on a pitch of 20%, where the coal seam was found and about 30 tons of coal were taken out. They encountered water in such quantities that they had to install a pump to handle this flow and, as no other power was available, a gasoline-driven engine was installed and as they advanced the pump was moved from the outside of the mine into the slope and was kept advancing further inside the slope. On May 13 the engine had been shut off and the men proceeded to leave the mine, when they were overcome by the fumes of the gas. Early in the morning a boy passing the mine heard the men talking and the engine going. Nothing more was heard from them until about 5:00 p. m., when the elder man's son, who was with his Sunday School class picnic, arrived at the mine and entered the slope and when in about 175 feet found the bodies of the two men. Evidently they had been dead several hours, as their clothes were soaked from the water dripping from the roof. About four inches of gasoline were found in the tank of the engine and it had been stopped by deceased, probably realizing that the air was getting bad, and on their way out they were overcome by the carbon monoxide gas from the exhaust of the engine. This mine was operated unlawfully and without the knowledge of the Inspection Department. Had the lessee notified the department of the mine, as required by law, the District Inspector would not have allowed the gasoline engine underground not permitted a single tunnel of 250 feet in length to be driven without furnishing adequate ventilation. Had the law been complied with, in all probability this accident would not have happened.

July 4—ANDY KLINE, Austrian, timberman, experience 20 years, age 46 years, single, employed by the Leyden Lignite Co. at the Leyden No. 2 mine, Jefferson County, was injured on June 13 by a fall of rock and coal and died on the above date. Deceased, Glavack and two other men were cleaning up and taking down loose roof on the third panel off second north at No. 4 room neck. Glavack stated deceased was standing on the entry inside of room neck and must have left there and gone into the room neck while

Glavack was taking down loose roof with his back to deceased when he (Glavack) heard a scream. The other two men said they were scared that they did not know what had happened or how. Deceased told the superintendent that he was trying to take down a piece of rock and, failing, he started to pick down the coal supporting the rock when it fell without any warning. The place where the accident occurred had caved and was inaccessible; this, with the conflicting statements made, renders it impossible to place the responsibility.

August 1—AMERICO POLETTI, American, pick miner, experience three years, age 19 years, single, employed by Mattivi & Sons at the Bunker Hill mine, Huerfano County, was killed by a fall of rock. Deceased and his partner had just finished loading a car when a rock fell from an invisible slip in the roof, striking him and killing him instantly. The slip paralleling the entry broke off at the face of the coal and dislodged a roadhead prop which was set about four feet from the face. The roof had been tested and found in good condition. The mine foreman had visited the place 30 minutes prior to accident. The roof showed no indication of being dangerous because of slips while driving entry, which depended entirely upon roadhead props. It is recommended that entry be cross-barred every three feet and kept within three feet of face. Accident is classed as unforeseen and unavoidable.

August 11—THOMAS M. TSIKIRIS, Greek, machine miner, experience 17 years, age 41 years, married, no children, employed by the Clayton Coal Co. at the Clayton mine, Weld County, was caught between car and timber and died two days later. Deceased and his partner had loaded two cars and the partner went out by about 100 feet from the face to a point where the grade of the haulage road changed from level to about $1\frac{1}{2}\%$ in favor of the loads to put in a couple of sprags to slow up the two-car trip when it came out. However, when deceased came to within eight feet from where his partner was waiting he stopped the mule and stepped from the front end of the trip to the side and was caught between the car and leg under one of the cross bars and was severely injured. The deceased was an experienced driver and there was sufficient clearance on the other side of the car and just ahead of where he stepped out. The accident was a misadventure and no one can be held responsible for it.

August 27—W. Y. KING, Korean, miner, experience $6\frac{1}{2}$ years, age 41 years, widower, one child, employed by the Hayden Coal Co. at the Hayden No. 3 mine, Routt County, was instantly killed by a fall of top coal. Deceased was working at face of room picking down loose coal, while his partner was dropping a loaded car out to the room neck. His partner heard a fall and went back and found King under a fall of coal. There is about 18 inches of top coal from room neck to the face of room, which was exceptionally well timbered with one line of props set $5\frac{1}{2}$ feet from the

face. An examination showed the roof to be solid, but the top coal, after falling, exposed a slip just inside the line of props. Mine foreman visited the place at 2:30 p. m. on August 26 and accident occurred at 11:30 a. m. of above date. The coal at this point is subject to bumps and probably this was the cause of the accident.

September 8—JOE ROMANO, American, machine loader, experience nine years, age 25 years, single, employed by the Victor-American Fuel Co. at the Chandler mine, Fremont County, came to his death by falling down a shaft. Deceased and two other men were being hoisted through the old air shaft which was used to hoist men so there would be no interference with the regular shaft hoisting coal during working hours. This shaft is equipped with a steam hoist and indicator consisting of a stationary bar with an arrow near each end and a traveling bar with one arrow. When this arrow reaches the stationary ones, it indicated that the cage was at rest on the top landing or at the bottom of shaft. The arrow indicating the top landing had been moved nearly one inch, so that before the traveling arrow reached the stationary one, the cage was above the landing. Phillip Jirout and deceased jumped from the cage and it is assumed that deceased in jumping struck something which sent him back down the shaft. His body was found at shaft bottom, 480 feet below. Frank Sabatino stayed on the cage. Neither Jirout nor Sabatino were injured. To prevent a repetition of similar accidents the arrows were riveted to the stationary bar. Men had been hoisted from this shaft two days previous to accident and the arrows were in place. No one knows what moved the arrow. Accident is classed as unavoidable.

September 10—GEORGE MUDRACK, American, driver, experience 10 years, age 27 years, married, one child, employed by the Consolidated Coal & Coke Co. at the Baum mine, Weld County, was caught between a loaded car and rib and was crushed so severely that he died a few hours later. There was no eyewitness to the accident, but at the time there were 11 loaded cars all coupled together on the parting, the last car extending over the switch of a room. There was another car in this room which was needed to complete the full motor trip. The deceased started to clear the switch by hauling the last car from the trip inby but neglected to uncouple car and before he realized the mistake the whole trip was running back on the entry. He cut the mule loose and attempted to stop the trip by bracing himself against the corner of the car and while doing this the front pair of wheels took the switch and the rear wheels of the car took the straight track, wrecking it, and catching deceased between the corner of the car and room neck, injuring him so severely that he died as above stated. He was an experienced driver and the accident was due to a mishap for which no one can be held responsible.

September 22—FELIPE SAMUNDIO, Mexican, pick miner, experience 14 years, age 44 years, single, employed by the Victor-

American Fuel Co. at the Pinnacle mine, Routt County, was injured on the 17th of September by coal bumping off the rib and died on the above date. At the time of the accident deceased was standing between two loaded cars and rib of room. He was busy taking down some loose coal off the rib when a bump occurred, throwing coal out with such force that several pieces struck his face, breaking his jawbones and fracturing his frontal skull. The bump being unforeseen the accident is classed as unavoidable.

September 30—TONY SLOGAR, Croatian, pick miner, experience 22 years, age 45 years, married, 11 children, employed by the Horace Anthracite Co. at the Horace mine, Gunnison County, was killed by a fall of rock. The coal seam at this mine is operated by longwall system and it is necessary to brush the roof for a roadway. Deceased and his partner had prepared for a brushing shot the afternoon of the day before the accident, which the shot-firer fired later. On arriving at their working place the following morning they tested the roof and took down loose coal and then proceeded to gob the rock from the brushing shot when a large rock gave way from the right rib, falling on deceased, killing him instantly. This rock parted from the roof and side by an invisible slip swinging out the breaker timbers on the right side. The place was well timbered and had been visited by the mine foreman about two hours prior to the accident. The accident was unforeseen and is classed as unavoidable.

October 4—W. E. WYATT, American, machine helper, experience 13 years, age 33 years, single, employed by the Boulder Valley Coal Co. at the Boulder Valley mine, Weld County, came to his death by being run down by haulage motor. Deceased and his partner started out with a machine from the face of east entry, the motorman was at the face of the main east waiting for the loaders to load a car; when this was finished he started to haul the car out to spot it in the first north and when passing a cross cut about 60 feet inby of the second north, one of the loaders here cautioned him to be careful of the machine men at curtain between first and second north. He immediately slowed down the motor, intending to stop before reaching the curtain, but in the next few seconds he saw deceased raise and lower his light a couple of times and retreat through the curtain. Believing this to be a signal that all was clear, he placed the controller on the second point, advancing through the curtain onto the deceased. The accident was a misadventure due to the curtain shutting off the vision of the deceased and motorman at a critical time, the possibility of the motorman misconstrued the deceased moving a light for a signal and the deceased misjudging the time it would take to remove the cable of the machine before motor arrived.

Recommended: That whenever a machine is moved along a haulage entry that the machine men see that the motor is stopped until the machine and cable are placed in the clear; also that the

motorman ascertain for himself that the road is clear before starting the motor and that curtains be eliminated wherever possible or where an over-cast or under-cast is practical. The accident is classed as unavoidable.

October 6—NELLO CUNICO, Italian, assistant mine foreman, experience 14 years, age 32 years, married, four children, employed by the Colorado Fuel & Iron Co. at the Kebler No. 2 mine, Huerfano County, was injured by flying coal on October 20 and died on above date. Deceased with mine foreman, McAllister, and three other men were engaged in shooting down top on main slope in order to get a more uniform grade in haulage. At the time of the accident Cunico and McAllister were the only men in the mine. Four shots were fired and Cunico used the electric battery to fire them. About 55 feet of shooting wire was used so that was as far as he could get away from the shots before firing them. Delay igniters were used so that deceased reached McAllister, about 80 feet from shots, before the shots went off and before shots went off he complained of having been struck by something, probably a flying rock from the shots. The slope at this point is above the coal so that there were no cross cuts or manholes to get into while shots were being fired. Under such conditions 55 feet of shooting wire is not enough with only the projections on the sides of the slope as their protection. If 150 feet of shooting wire had been used, the accident might have been avoided.

October 14—W. L. HILL, American, machine miner, experience 14 years, age 37 years, married, six children, employed by the Vickers Coal Co. at the Kenneth mine, Las Animas County, was crushed between loaded trip and rib. Deceased and several other men got on a loaded trip at the lower parting of the sixth dips. They rode a distance of seven or eight hundred feet, at which point the manway intersects the dip. In jumping off the trip at this point deceased struck the bell line and was knocked back in between the cars, being dragged and rolled a distance of about 30 feet, sustaining injuries that he died about eight hours later. Deceased was responsible for the accident by riding a trip which is prohibited from being used as a mantrip.

November 7—GEORGE AMEN, German, rancher, no underground experience, age 58 years, married, no children, employed by no one (getting coal for himself), at the Byrnes mine, Arapahoe County, was killed by a fall of debris. This mine was supposed to be operated as a strip pit but deceased was undermining coal from under the roof when about five tons of soapstone fell on him. No timbers or any other kind of supports had been set to uphold the roof. The accident was the result of dangerous practices and lack of experience. No compensation insurance was carried at this mine for those employed.

November 15—ARTHUR H. WEAVER, teamster, some underground experience, age 27 years, single, employed by the Man-

cos Coal & Fuel Co. at the Mancos mine, Montezuma County, was killed by a fall of rock. Deceased was employed as a teamster and, finding there was not enough coal in the chute for a load, entered the mine for a visit with a miner. He sat down on the roadhead and talked with one of the miners who was working at the face when a large rock, released by a V-slip in the roof, fell on him, killing him instantly. The miner working at this place stated that he had tested the roof about 10 minutes previous to the accident, but as he had very little experience in coal mining his judgment as to the condition of the roof was probably as faulty as the roof at this place, which is of a soft, muddy shale and full of cross slips. There was no roadhead prop set in this place. Had there been, probably the accident would have been avoided; otherwise the place was well timbered. The company is to blame for this accident, through a lack of experienced supervision and allowing anyone not employed underground to enter the mine. Recommended that all working places be cross barred and that a roadhead or safety prop be used in all working places.

November 16—GEORGE FOOS, American, driver, experience 14 years, age 28 years, married, three children, employed by the Louisville-Lafayette Coal Co. at the Hi-Way mine, Boulder County, came to his death by being caught between a loaded car and cross bar. A timberman was engaged in putting up a cross bar when deceased came with his mule to pull a loaded car out of the room. As the cross bar was not in place, deceased helped place it. On one side it was hitched in the coal and on the other end a slab was pushed under it for temporary support until deceased had taken out a loaded car of coal. On the way in the mule did not touch the bar, but on coming out with a loaded car he knocked it down, dislodging the slab and allowing the bar to fall across the roadway with one end in the hitch and the other on the floor. Deceased was on the front end of the car and on the side where the bar was in the hitch and he was caught and so badly crushed that he died shortly after the accident. Accident might have been avoided if sufficient clearance had been allowed so that the mule would not rub on timbers, or if timberman had been allowed to finish the job before permitting deceased to pull the car out of the room. Deceased came to his death through no fault of his own and the accident is classed as unavoidable.

December 20—ROY MITCHELL, American, driver, experience 27 years, age 40, married, two children, employed by the Calumet Fuel Co. at the Calumet No. 1 mine, Huerfano County, was killed by a local gas explosion. Deceased was employed as boss driver on the morning of the explosion and was instructed to go to the fourth dip hoist and drop a trip of empties down to the fourth dip for the men to load. In some manner an accumulation of gas had gathered at this hoist and was ignited by an arc caused by a line switch being thrown or from the controller or motor and extended down the dips for a distance of 1,000 feet blowing out

stoppings and extending about the same distance out the fifth east and where the stoppings were blown out between the main and back entries. The stoppings in the sealed area were not injured. This sealed area is in the 8th, 9th, 10th and 11th North Raise Entries off the fifth east. This area has been sealed for five years. It is possible though not probable, that a cave of sufficient size took place in the sealed area to force the gas through the stoppings. There is a pipe which leads from the top of the stoppings in the 11th north which is equipped with a valve that is supposed to be kept chained and locked open. This pipe passes under the haulage tracks of the main east fifth and emerges in the return entry where it is equipped with a series of elbows and nipples, rising vertically two feet and spreading horizontally 18 inches and then drop 18 inches. This open end of the pipe is supposed to be kept under one-half inch of water and is called a water seal. In the lower elbow there is a plug to drain the pipe as water collects in it, evidently from condensation from the warm moist air and gases draining from the sealed area. If this plug is not removed regularly it would allow an accumulation of water and cause pressure to build up in the sealed area forcing the gas to bleed out around the stoppings. There is no doubt the gas came from the sealed area and that either the closing of the valve or neglecting to drain the pipe caused the accumulation. On the day of the accident the mine was idle, but about 67 men were busy loading empties. With deceased was Thomas Somsy who was severely burned. That the explosion did not extend further into the mine but was localized as above stated may be attributed to Rock Dusting of the haulageways. Recommended: (1) That an over-cast be built at inby parting the fifth east so that positive ventilation will be assured over the hoist. (2) That elbow and nipple connections be taken off the drainage pipe in the back entry to insure positive drainage.

December 23—JAMES MORRIS, American, driver, experience 35 years, age 50 years, single, employed by the Louisville-Lafayette Coal Co. at the Hi-Way mine, Boulder County, was killed by being dragged under a loaded car. Deceased was taking a loaded car of coal from a chain pillar to the main parting and was on the front end of the car with one foot on the bumper and the other on the tail chain. He had gone about 35 feet when a slight grade in favor of the load, the mule kicked him in the breast causing him to fall in front of loaded car and dragging him under for a distance of 18 feet before the mule could be stopped by one of the miners and caused injuries which caused his death ten hours later. At the point where accident occurred there was ample clearance on both as to height and width, the clearance between bottom of car and top of tie only 11 inches. Deceased was an experienced driver and came to his death through no cause of his own and is therefore classed as a mishap.

December 24—PAUL JACOVETTA, Italian, machine miner, experience 20 years, age 51 years, married, three children, em-

ployed by the W. E. Russell Coal Co. at the Russell mine, Weld County, was killed by a battery haulage motor. The accident happened on the main haulage road as deceased and three other men were traveling towards the hoisting shaft on their way out from their working places. They heard the electric haulage motor coming from the inside with the last trip of the day and stepped into a shelter hole and let the trip go by and as the last car passed by, deceased stepped out onto the track and was struck by a battery motor which was following about 20 or 30 feet behind the coal trip. The deceased neither heard nor saw the motor, and the motorman although reversing the motor was unable to stop it in time to prevent the accident. The other men saw the headlight shining in time to save themselves, but did not have time to warn deceased. The accident was due to a misadventure and no one can be held responsible for it. Recommended: (1) That at least 300 feet distance be kept between the rear end of a trip and the motor of the other trip when running on the same main haulageway at the same time, except when they are coupled together.

LIST OF FATAL ACCIDENTS WHICH OCCURRED IN THE COAL MINES OF COLORADO DURING THE YEAR 1933

January 5—CURTIS E. KNOX, American, night fireman, experience 6 months, age 19 years, single, employed by the Good Fuel Co. at the Christensen mine, Jefferson County, came to his death by being caught between a wire rope hoisting cable and sheave wheel. Deceased assisted his uncle, Mr. Knox, to haul a truck load of slack from a storage bin and spot it near the boiler room, and he was to transfer the slack from the truck by wheeling it into the boiler room in a wheelbarrow during his shift. To make the distance as short as possible the truck was spotted as near to the boiler house as permissible and in doing this the rear end of the truck was directly under the main hoisting cable which runs horizontally from the engine house to a sheave that turns it up to travel over the sheave wheel at the top of the head frame of the shaft. The sideboards of the truck extended to within five inches of the cable. The accident occurred while deceased was in the truck transferring the coal to the wheelbarrow, when the night foreman was going down the shaft to start the pumps. Night foreman got into the skip, the deceased gave a verbal signal to the engineer, who lowered the skip to the proper destination and walked out of the engine room and saw the deceased caught between the rope and lower sheave wheel. He called for help and with the assistance of Mr. Knox, reversed the wheel and released deceased who died a few minutes later. The accident would have been avoided had deceased got out of the truck before giving the signal or had the truck been stopped a few feet farther back so that it would not have been directly under the rope.

January 18—JOHN CHICCOVI, Spaniard, rancher, no experience in coal mining, age 41 years, married, two children, came to

his death by a fall of surface debris. The place of accident is a strip pit used by the community, who go there to mine their own coal free of charge. This pit is located in Elbert County, 12 miles east of Kiowa and is owned by Joseph H. Stander. The coal is six feet in thickness and very impure. It crops out in a gulch several feet above the floor. At the point where the accident happened there is about seven feet of cover over the coal. It seems that deceased was engaged in shovelling away the upper part of the seam which contained a large amount of impurities when the surface over-burden fell upon him, killing him almost instantly. There was no eyewitness present and the foregoing remarks are made from the testimony of Lawrence Bender and Joseph Stander of Kiowa, who helped remove the body from the scene of accident and who accompanied investigator to the pit. This accident could have been avoided if the face of the workings had been kept at an angle of 30 degrees with the horizontal and the coal stripped clean for a distance equal to the thickness of the seam. It is reported that a man was killed 10 years ago at a neighboring strip pit and two years ago a young man was seriously injured at the same pit.

January 25—RALPH CONLEY, American, pick miner, experience 1 year, age 40 years, married, two children, employed by Wm. Marriott at the Marriott mine, San Miguel County, was injured December 19, 1932 by a fall of draw slate which broke his back and caused internal injuries from which he died on the above date. Deceased returned to his working place after having fired a coal shot and started to remove the loose coal from the face when the draw rock over the roadhead gave way falling on him. The place was about 20 feet wide without props, the draw rock over the coal seam is about nine inches thick and is usually taken down after the coal is removed. At the time of the accident the draw rock was overhanging four feet without support. Had deceased timbered the rock or taken it down before he started to remove the coal at the face the accident would have been avoided. Experienced supervision at this mine and lack of good mining practice on part of the deceased are responsible for this accident. Recommended: That a good experienced miner be hired at this mine to look after the safety condition and take care of the inexperienced workers that may be employed.

January 29—CHAS. CESSNA, American, miner, experience 20 years, age unknown, widower, three children (grown up), employed by the North Park Coal Co. at the Moore No. 1 mine, Jackson County, was injured December 21, 1932, by jumping off from a swiftly moving trip of empty cars. It seems that deceased and the rope rider got on the empty trip just as it started to descend the slope, deceased inside the rope car and the rope rider on the rear. After traveling about 200 feet they realized from the great speed they were making that the trip was not under control and when opposite the third north parting they jumped off. The rope rider landed safely but deceased fell and rolled against the rope and

suffered serious injuries. However, he stayed in the mine until the end of the shift. He took to his bed and apparently did not receive proper attention. His wounds became infected and he died on the above date from septic poisoning. The rope rider stated that the brakes would not hold, but the mine foreman stated that the brakes were wet and had he gradually applied the clutch he might have been able to slow the trip down. The accident was a mishap for which no one could be held responsible. Recommended: That brakes on the hoist be tested by actual demonstration or other effective means before men are allowed to ascend or descend the slope.

January 31—SAM CLARK, American, machine miner, experience 30 years, age 48 years, married, two children, employed by the Shamrock Coal Co. at the Shamrock mine, Weld County, came to his death by electrocution. Deceased's partner was pushing an empty cars from the entry, intending to switch it into a room. Deceased was standing close to the switch points, between track and rib, to push over the corner of the car to force it to enter the room switch. The car, being new, was a little tight on the gauge. One wheel took the point and the other went straight, causing it to raise a little, and deceased stepped back into the electric feedline, electrocuting himself. All efforts to resuscitate him were of no avail. The accident was due to a mishap, due to the inherent dangers from electric feed lines in a wet mine. The company stated that the feed lines will be guarded where possible and will discontinue the use of any weatherproofed insulated wires and will replace that which is in use now with a grade of wire that will withstand moisture, if any are available in the markets.

February 10—FORRESTER CARR, American, machine miner, experience 14 years, age 33 years, married, one child, employed by the Garfield Coal Co. at the Garfield mine, Mesa County, was killed by a fall of rock. Deceased was working alone, laying a track to the face of an entry, preparatory to loading coal, when a large rock gave way over the roadhead, falling on him and killing him instantly. This entry is driven 15 feet wide with the track laid on one side. The roof is supported by a row of props five feet apart and parallel to the track on the wide side of the place. The last prop in this row was seven feet from the face. There was no roadhead prop at the time of accident and had there been one the accident probably would have been averted. As a future safety measure, it is recommended: That an emergency prop be used at all times in the working places of this mine.

March 7—GENNARO GUERRIERI, Italian, pick miner, experience 30 years, age 51 years, married, three children, employed by the Crested Butte Coal Co. at the Bulkley No. 2 mine, Gunnison County, was killed by a fall of rock. On March 4 the fire boss examined the working place of deceased and found that shots fired on the last day the mine worked had displaced several props at the

face and rock had fallen. He notified deceased of this condition and according to testimony the latter entered the mine to make the place safe and to prepare for the loading of coal the first day mine worked. He entered the mine without telling any of the officials and no one knew he was in the mine except his family. As he did not return at the usual quitting time, his family called the mine office and a search was made and he was found dead. It was found that deceased had reset two props when a piece of rock fell, striking him on the head and cutting off one finger. He walked about 50 feet and fell where he was found dead. This accident was due to the hazard of the work the deceased was doing and to a lack of discipline on part of the mine management in not enforcing an adequate checking system. To avoid future accidents of this kind the following recommendations are made:

(1) That a gate be placed at each entrance of mine and be closed when the mine is not working.

(2) That an adequate checking system be established and the miners be obliged to comply with same so that no one can enter the mine without the knowledge of the officials.

March 23—JAMES W. WATSON, American, tracklayer, experience 14 years, age 47 years, married, five children, employed by the McNeil Coal Corp. at the Sterling mine, Weld County, was killed by a fall of rock. In the section where the accident occurred pillars were being extracted and a final breakthrough in a room pillar had been made and during the night previous to accident, a cave took place in the extracted territory. A small amount of top coal and rock covered the ends of a pair of rails. Deceased and partner, after finding the place quiet, started to remove some of the rock and coal from the rail so that they could move same by hand. While engaged in this work a bump occurred, throwing down a large piece of coal from the rib and top and a slab from the roof followed, striking deceased on the back of his head and shoulders with sufficient force as to cause almost instant death. Accident was a mishap for which deceased was not responsible, as he was performing his duty, although it might have been avoided had a Sylvester and chain been used to pull out the rails.

Recommended: That a Sylvester or other method equally as safe be used to pull rails from under caves. The management stated that the above recommendation will be complied with.

April 16—PETER AUGUST SIRE, American, fire boss, experience 29 years, age 53 years, married, one child, employed by the Boulder Valley Coal Co. at the Boulder Valley mine, Weld County, was injured on March 17 by an underground timber truck and died on above date. During slack periods of working time, trips of timber trucks are spotted in various sections of the mine and fire bosses occasionally take a storage battery locomotive into such sections and unload timbers from the trucks and also distribute them in the working places. On the morning of the accident, deceased

and partner were doing this kind of work when an order was received for the men to withdraw. The trucks were practically unloaded. There were three other men working in the same section and deceased and partner decided to haul them out to the main north to meet the regular man trip that would be coming from the inby north sections. Deceased and the three miners were riding in the first timber truck which was coupled to the motor by a chain about two feet long. There were five other empty trucks on the trip and from evidence given, they were not traveling very fast but on going down a short dip in the track, the empties caught up to the motor, making slack couplings and when the motor picked up the slack, deceased was bumped out of the end of his truck and struck the second truck and injured so severely that he died a month later. The timber trucks are constructed similar to a mine car but lighter in weight and open on both ends. The accident was due to a mishap. The accident was unforeseen but might have been avoided had deceased braced himself more securely in the truck. The men were ordered out with their trucks on account of a fire at the bath house which seemed to be spreading; however, the fire was controlled and the withdrawal was unnecessary.

September 5—W. P. CLARK, American, pick miner, experience 40 years, age 55 years, married, five children, employed by the Mancos Hill Coal Co. at the Mancos Hill mine, Montezuma County, was killed by a fall of rock. Deceased was digging coal at the face of the room when a large piece of drawslate gave way from an invisible slip, striking him and injuring him so severely that he died shortly afterwards. The place was well timbered, having five rows of props about four feet apart and set within four feet from the face. The accident is classed as unforeseen and unavoidable. This mine employs no mine foreman.

June 21—WALTER POLITT, American, pick miner, experience 15 years, age 34 years, single, employed by the Pikes Peak Fuel Co. at the Pikeview mine, El Paso County, was killed by a fall of coal from the roof. A pillar was being extracted in a room off a haulage road where three feet of coal were left up for roof. This was being taken down to provide more height along the haulage road between the last cross cut and the inby breakthrough. A few short plug shots had been fired into the top coal and it was pulled down to a seam parting, leaving a lip of coal about 20 inches. Deceased when starting to work tested the lip of coal and decided to make it safe by driving a wedge over the top to snap off the loose edge. However, owing to the seam parting over farther than is usual, the edge did not break off but a large slab about 8 feet wide and 12 feet long and 20 inches thick gave way, threw out the roadside props and in some manner deceased was caught, receiving such injuries that resulted in immediate death. Deceased was an experienced miner, classed as a very good man for pillar work. The accident was unforeseen and no one could be held responsible for same.

July 21—THOMAS STRUTHERS, American, pick miner, experience 16 years, age 32 years, married, two children, employed by the Victor-American Fuel Co. at the Delagua mine, Las Animas County, was killed by a fall of rock. Deceased and two partners were working in a room splitting a barrier pillar, the two partners working at the face and deceased on the butts about 10 feet from face on the left side of the place. He had mined out coal along the rib towards the face when draw slate gave way from an invisible slip between the rib and props, falling on him and injuring him so severely that he died shortly afterwards. The distance from props to the rib was three feet and the place was well timbered. The accident was unforeseen and therefore unavoidable.

October 3—ABE BELL, American, pick miner, experience 25 years, age 44 years, single, employed by the Moffat Coal Co. at the Oak Hills No. 2 mine, Routt County, was killed by a fall of draw rock. The roof here has a draw rock covering, about one foot thick, overlying the coal and the roof is damp and sweaty, therefore none too safe. At the time of the accident deceased apparently was making a place to set up a prop near the face when a bump occurred causing several pieces of draw rock to fall on him and injuring him so severely that he died shortly afterwards. The place was well timbered, including roadhead prop, and deceased tested the roof just prior to the bump occurring and the roof sounded alright. He was a careful workman and the accident was unforeseen and is classed as unavoidable.

October 13—ROY LOPEZ, Mexican, pick miner, experience 9 years, age 28, single, employed by the Vickers Coal Co. at the Kenneth mine, Las Animas County, was killed by a fall of draw slate from the roof. Deceased and his partner were taking a skip off an upper rib in an entry. When they started to work they were warned by the night mine foreman that the roof was bad, as a slip had opened up along the roadway about five feet from the rib. They trimmed down the loose rock to within about two and one-half feet of rib where they found it too solid to proceed, so two props were set under the overhanging rock and they began to dig coal off the rib. Evidently they thus released the back end of the slip which swung the two props out and let down about a ton of rock, which fell on the two men, injuring deceased so severely that he died four hours later and breaking the back of his partner. The night foreman is also required to run a hoist and it is questionable whether he has time to properly perform his duties as an official. From the evidence given, the accident is classed as unavoidable, but it is recommended:

That the night foreman shall not be required to do any work that interferes with the regular duties as outlined by the title of his position.

November 27—C. W. MILES, American, night engineer, experience 30 years, age 50 years, married, three children, employed by

the Hayden Coal Co. at the Hayden No. 3 mine, Routt County, came to his death through suffocation. At the time of the accident deceased was shoveling fine coal into a concrete pit 3 feet 4 inches long, 3 feet wide and about 4 feet deep. A hose was close at hand running water into the pit to wet the fine coal down. An elevator carried the wetted coal from this pit to a screw in the boiler room which in turn delivered it to bins at the boilers for stoker firing. The elevator is electric and belt driven. In some way deceased fell into the pit, which at the time contained from 2½ to 3 feet of water, and apparently his arm was caught in the elevator, which was in motion, as from the position of his body he made desperate efforts to free himself, his right foot was above the water resting against the wall of the pit and the rest of the body being submerged under the water and not being able to disentangle himself, he was suffocated. Apparently his arm stuck in the elevator as the motor continued to run until the pulley had burned a hole in the belt before the arm was released from the pulley. The accident was a misadventure for which no one could be held responsible. Deceased was a competent and careful workman.

November 29—VAN CLOSE, American, machine miner, experience 26 years, age 43 years, married, three children, employed by the Colorado & Utah Coal Co. at the Harris No. 1 mine, Routt County, was killed by a fall of draw rock. Accident happened in a room pillar. Pillar was cut at the inby end by an arc-wall machine, electrically driven. The machine cuts in the seam four feet below cut and five feet above. The upper part of cut is loaded out first. At the time of the accident deceased was picking down loose coal, loading it into pit car. An invisible slip was exposed, causing a fall of draw rock from the roof to fall on him, causing instant death. The place had been visited two hours prior to the accident. Deceased's partner testified that they had tested the roof before starting to work and during intervals between and found the roof good. The accident happened in P slope. The timbering agreement for this section of the mine calls for timbers to be kept up to within 8½ feet of face. At the time of the accident the nearest timbers to the face were 15 feet away. The company is held responsible for the accident through its failure to have timbering agreement enforced.

Recommendation: That timbers at all times be set in accordance with timbering agreement.

December 2—R. J. BOYLE, American, mine foreman, experience 25 years, age 42 years, married, no children, employed by the Good Fuel Co. at the Littleton Valley mine, Jefferson County; and

MARTIN KRANLEIDES, German, mine mechanic, experience not known, age 44 years, single, employed by the Good Fuel Co. at the Littleton Valley mine, Jefferson County, both of whom came to their deaths from suffocation, caused by black damp. (See detailed report attached hereto, page 129.)

December 2—CHARLES FOSS, American, machine miner, experience 13 years, age 30 years, single, employed by the Louisville-Lafayette Coal Co. at the Hi-Way mine, Boulder County, was electrocuted by coming in contact with a wire charged with 440 volts A. C. Deceased and two partners were preparing to load coal lying on an entry track. The former had placed his coal check on the outby end of his car and was walking between it and the entry rib to start loading when he slipped and in trying to keep from falling, he grabbed a bare spot in the electric feed line wires laid along the rib. The electric feed line wires laid in this section of the mine are insulated with what is known as "rubber covering." At some time a splice was made in one of the wires and was not insulated or taped, leaving a bare spot of about five inches in length. From the evidence given, no one knew that such a bare place existed in the line. The coal mining laws require that all wires, other than trolley wires, conducting electricity, be properly shielded or insulated. This rule being neglected, the company is held responsible for the accident.

December 29—LOUIS CHIODO, Italian, rope rider, experience limited, age 23 years, single, employed by The Colorado Fuel & Iron Co. at the Crested Butte mine, Gunnison County, was run over by a trip of empty cars. Deceased had left his work a little before the regular quitting time and arrived at the man trip station, which is located close to main rope parting. The time was about 3:20 P. M. and as the man trip did not leave the parting until 3:45 P. M., deceased decided to walk. He started out on the manway, but when he came to the first connecting cross cut between manway and haulageway, he cut back to the main haulageway and proceeded out. When he had walked about 150 feet, an empty rope trip coming from the outside knocked him down and injured him so severely that he died an hour later. The haulageway at the point where the accident occurred has an average clearance of three feet on each side of the track, which gave the deceased plenty clearance to get out of the way of the trip. It is possible, however, that the trip being so close to the deceased, that the rope jumping off a roller knocked his feet from under him and, losing his balance, he fell in front of the trip. There were no eye witnesses to the accident. The deceased was entirely to blame, as he was violating the coal mining laws and the company safety rules by traveling the main haulageway when there is a regular manway provided for that purpose. Had he quit work at the regular time the man-trip would have taken him safely out. The discipline at this mine is very good and any miner or employe violating the mining laws or safety rules is punished by being discharged or laid off for several days.

REMARKS ON FATAL ACCIDENT AT THE LITTLETON
VALLEY COAL MINE OPERATED BY THE LITTLETON
VALLEY COAL COMPANY, JEFFERSON COUNTY,
COLORADO, ON DECEMBER 1, 1933

The quality of the coal is sub-bituminous and very subject to spontaneous combustion, the seam being from six to seven feet in thickness and pitching from 67° to 85° . On December 30, 1932, a fire was discovered in chute No. 16, sixth south entry. Deputy Inspector Hugo H. Machin, on December 31, 1932, investigated same and recommended that the south side of mine be sealed off with temporary stoppings, to be followed up immediately with permanent concrete stoppings. The mine at this time was being operated by Thomas Harris and Associates, who agreed to buy Charles Daniels interests in the property. Harris and Associates failed to carry out the recommendations, thereby forcing Mr. Daniels to take over the mine and, in order to save the mine he built temporary stoppings.

On September 29, 1935, the mine was again examined by Deputy Inspector Machin. The permanent stoppings not having been built, a recommendation was made "that permanent concrete stoppings be completed in thirty days," and Mr. Daniels agreed to have this done.

On December 2, 1933, at 1:00 A. M., I was notified that an explosion had occurred and that two men were in the mine. Arriving there shortly afterwards with E. H. Denny of the U. S. Bureau of Mines and Inspector Machin, we found that no explosion had taken place, but that the fumes from the area enclosed by the temporary stoppings had leaked through them and ascended the slope to a point above the pump.

The deceased, Martin Kranleides, the night mechanic, went down the slope about 10:00 P. M. on December 1, 1933, to oil the pump, and failing to return in a reasonable time, Mr. McCallum, the day mechanic, went down the slope and saw Kranleides lying down. McCallum ascended the slope, called night foreman Robert Boyle, and day foreman John Worman. The above named three then went down the slope, McCallum getting off at the end of the bell line. Boyle and Worman continued down to the pump and on reaching Kranleides they raised him up to put him in an empty car in order to bring him out to the surface, but before they got the body high enough, Boyle ordered Worman to get into the car, giving at the same time a signal to McCallum to have the car hoisted. Worman succeeded in getting into the car; Boyle failed to get in.

After several hours' effort we found the ventilation insufficient to remove the heavy black damp (CO_2) in order to get the bodies. Not having oxygen breathing apparatus, the Denver Fire Department was called. They arrived in a short time and with their gas

masks they entered the mine, accompanied by Charles Daniels, E. H. Denny and Hugo H. Machin and brought out the bodies.

On account of lack of funds the Coal Mine Inspection Department was unable to again inspect this mine at the expiration of the time allowed on September 29, 1933, to see if the recommendations made at that time had been complied with. It is my opinion that if this had been done, the mine would have been closed down until the permanent stoppings were built and thereby avoiding the accident.

The Littleton Valley Coal Company, through failure to comply with the coal mining laws upon recommendations made, is held responsible for the accident.

I wish to convey to the Denver Fire Department and all others assisting in the recovery of the bodies my sincere thanks.

JAMES DALRYMPLE,
State Inspector of Coal Mines.

FATAL ACCIDENTS WHICH OCCURRED IN THE COAL MINES OF COLORADO DURING THE YEAR 1934

January 4—MIKE FUNERO, Italian, company man, experience 25 years, age 48 years, widower, not known to have children, employed by the Vickers Coal Co. at the Kenneth mine, Las Animas County, was struck by a loaded trip of cars and from the effects of which he died shortly afterwards. Deceased was employed as a general utility man and on the morning of the accident he had completed the installation of a door on an entry and had sent his tools in an empty trip to an entry where he was to start putting in permanent stoppings. He followed the empty trip to the 17th entry and waited on the dip track while the rope rider pulled a loaded trip out of the entry parting. He was not familiar with the haulage in this section of the mine and as soon as the loaded trip was pulled, he started to proceed on the loaded track and was met by a loaded trip that was dropped on to the parting. There is sufficient clearance on the parting between loaded and empty tracks for him to have stepped aside and have been in the clear, but apparently he became confused and attempted to run back to the dip entry and was overtaken and knocked down with fatal results. The accident was a misadventure for which no one could be held responsible.

All main partings are to be electrically lighted and this may prevent such accidents in the future.

March 26—CHAS. LLOYD DEAN, American, driver, experience 13 years, age 30 years, married, five children, employed by the McNeil Coal Corp. at the Sterling mine, Weld County, came to his death by being struck by a mine car. A few minutes after the accident occurred, deceased was found by Chas. Adeock, driver, in an entry lying on his back under the second car of a trip. When

asked how it happened, he said, "the mule fell and I fell with him." The mule was unhitched and no derailment had taken place. The grade of the track here is about 5% in favor of the loads. Height of entry is 64 inches. Width of entry 8½ feet, and plenty of clearance. Deceased had complained thirty minutes before accident that he felt ill, and whether this was contributory to his fall is not known. The front end of the car had not run over him, as there is very little clearance between the bottom of the cars and roadbed. How he got under the second car without the front car running over him is a mystery, for had it done so, he would have been badly mangled. There was no eye witness to the accident and it is classed as unavoidable. To prevent similar accident the following recommendation is made: That all drivers be compelled to ride rear end of all trips, or that shafts and guns be used in place of tail chains.

April 1—JOHN M. ROGERS, American, pick miner, experience 15 years, age 51 years, married, two children, employed by the Gilson Asphaltum Co. at the Carbonero mine, Garfield County, came to his death through carbon monoxide poisoning. On April 1, between the hours of 9:00 A. M. and 10:00 A. M., deceased entered the mine to do some work. About noon on the same day, a fire was discovered in the fan house of the mine. The local officials, knowing Rogers to be in the mine, made an attempt to rescue him. The ventilating equipment was destroyed by the fire and it was impossible to enter the mine. An emergency fan was installed and a rescue party entered the mine on April 2, recovered the body and brought it outside. The fire in the mine was sealed off by concrete stoppings and a new fan installed. The fire in the mine is confined to the abandoned part of the workings. The active part is not affected. The accident is classed as a misadventure for which no one is held responsible. However, the following recommendation was made for future guidance: That a gate be placed at the entrance of the mine and locked to prevent any miners from going into the mine until it has been examined by a certified mine official and with their permission.

May 3—PAUL MARTINI, Italian, timberman, experience 25 years, age 46, married, five children (two minors), employed by the Leyden Lignite Co. at the Leyden No. 3 mine, Jefferson County, was injured on January 30, 1934, by a fall of top coal and died as a result of same on above date. Deceased and Nils Jorgensen were grading track when top coal fell. John Romans and partner, miners, heard the fall, looked around and saw Martini and Jorgensen partly covered with coal. There is from 1,200 to 1,500 feet of cover over the coal and in pulling of pillars there is continual roof movement accompanied by heavy bumps, three of which occurred while taking the statements of Romans and partner. They stated that there was no warning before the coal fell. It is my opinion that top coal was displaced by a sudden bump, no one being held responsible. Martini and Jorgensen were directed to grade this track and

remove two low cross bars. The accident might have been avoided had the timbering been done before track work.

Recommended: That wherever timbering is necessary in conjunction with track grading, that timbering be done first.

May 25—JOE ROSKOSKI, American, machine loader, experience 30 years, age 56 years, married, two children, employed by the Temple Fuel Co. at the Brodhead No. 9 mine, Las Animas County, was instantly killed by a fall of rock. Deceased and his son-in-law had loaded the last car of a previous cutting when a pot rock $7\frac{1}{2}$ by $6\frac{1}{2}$ feet and two feet thick fell from the right side of the place where he was working and struck him. The fall of rock dislodged two props, breaking four inches over face of solid coal. Width of room 14 feet 9 inches and length from main entry 25 feet. Height of coal 3 feet 8 inches and distances between props $3\frac{1}{2}$ feet, which made the place well timbered. On account of the height of coal, cross bars cannot be used, as it would make the place too low for cars to enter. The machinemen agreed that hereafter when they entered such places to cut, that they would stop at intervals to examine the roof for such pots and if such are discovered the place would be stopped until the management has time to shoot the pot down. The accident is classed as unavoidable.

May 29—THOS. TEMPLEMAN, American, machine miner, experience 39 years, age 52 years, married, three children, employed by The Colorado Fuel & Iron Co. at the Cameron (Robinson No. 4) mine, Huerfano County, was killed by a fall of rock. Deceased with his son and another man were working in the main south entry, which is driven 23 feet wide as a gob entry. A draw slate from eight to 18 inches thick generally comes down with the coal when it is shot. The three men had loaded 13 cars of coal from the cut when they discovered a bad pot rock on the left side of the place where three props had been set some time before. The man on the left side had taken out two props to let down the rock, the other two men were standing next to the car at the face close to the third prop when it gave way, releasing the pot rock, catching deceased between the car and rock and killing him. According to evidence, the place was well timbered. It is possible that if the car had not been at the face, the accident might have been avoided. It is classed as unforeseen and unavoidable.

July 14—MIKE PAVLICA, Slav, pick miner, experience 26 years, age 46 years, married, six children, employed by the Pikes Peak Fuel Co. at the Pikeview mine, El Paso County, was killed by a fall of top coal. The deceased and five other men were engaged in pulling chain pillar and room stumps in an entry. One hour and ten minutes before the accident occurred the mine foreman had instructed the six men to load up the loose coal, thus finishing the place. This had been done when the top coal, two feet in thickness, gave way suddenly and fell on deceased, who was leaving the place with his tools and had reached a point within four feet of safety.

From the evidence of the other five men the top coal fell very suddenly, giving practically no warning. At the time of inspecting the accident another fall of rock had fallen on top of coal, so that it could not be ascertained how well the place had been timbered before top coal fell. Deceased was considered a very careful worker by his employer and fellow workers. The accident is classed as unavoidable.

July 18—JOHN W. GRAVES, American, company man, experience 15 years, age 51, married, three children, employed by the Pikes Peak Fuel Co. at the Pikeview mine, El Paso County, was killed by a fall of top coal. The deceased was instructed by the mine foreman while making his examination on the morning of the accident to pull up a room switch that day after quitting time so that the track could be graded. This work apparently had been started when accident happened through a fall of top coal. The fifth dip district is pillar work and has considerable squeeze on it, both on haulageway and working places. Timbers are being broken and pushed out of place daily. The bottom is heaving all the time so that considerable supervision is necessary to keep the district in reasonably safe condition. The accident is considered unavoidable.

Recommendations: 1. That enough certified men be employed to assist the mine foreman so that pillar work and squeezed territories will be examined at least three times during the shift. 2. That sounding sticks with metal ends be used in testing roof. 3. That in all pillar work the maximum distance between props shall be six feet and distance between last props and face six feet. The last recommendation applies to pillar work.

July 28—WILLIAM KELLITT, English, machine miner, experience 36 years, age 58 years, married, five children, employed by the Rocky Mountain Fuel Co. at the Columbine mine, Weld County, was killed by a fall of rock. Accident occurred in a room pillar. All of the last machine cut coal had been loaded out and deceased and his partner were taking out the last remaining portions of coal from face and ribs by pick from the cutthrough. While loading the car, the place suddenly began to cave and both started to run out. The partner, being in front, was successful, but deceased slipped over a loose pile of coal just as a cross bar gave way, releasing top coal, which fell across his foot in such a manner he could not extricate himself. The partner immediately got help from other men working close by, but the place was working to such an extent that they could not get him out until he was covered up and he died from the shock and suffocation.

The mine foreman had visited the place an hour before the accident and found the place well timbered and no evidence of danger of caving. The accident was due to the inherent danger of pillar work and is classed as unforeseen and unavoidable.

September 5—FRANK MONTEZ, Mexican, machine miner, experience 23 years, age 43 years, married, six children, employed

by the Rocky Mountain Fuel Co. at the Columbine mine, Weld County, was killed by an electric shock. It was quitting time and deceased was on his way out of the mine when he came to the double parting at the bottom of the shaft. He walked between the tracks filled with loaded coal cars. Upon reaching the cross-over, the cars on both tracks came together. He undertook to pass between two loaded cars and came in contact with a trolley wire suspended directly over the cars carrying 250 volts D. C. The car bumpers are of steel and deceased had steel plates on his shoe soles and his clothing was wet from perspiration, making a complete contact. First aid was immediately applied and when the doctor arrived he was taken to the surface and a pulmotor was used for an hour but without result. The accident is classed as unavoidable. However, the following recommendation was made: That notice prohibiting employees from traveling on double parting be posted at north end of double parting and that all employees be compelled to travel manway to bottom of shaft. Management advised that they would have trench cut in roof and the wires placed in same.

September 11—TONY SPANDRE, Italian, pick miner, experience 20 years, age 57 years, married, two children, employed by George Brown at the Fire Glow mine, La Plata County, was killed by a fall of coal. Deceased was undermining coal on the right hand side of an upraise working place. He had mined the coal to a depth of five feet and about 20 feet long and had spragged it five feet apart. At the point where the accident occurred, a piece of coal about one foot thick by four feet long gave way from a slip, striking deceased, who lost his balance, falling down the raise, striking a prop, and the coal that fell crushed him against the prop. The place was well timbered and the coal which fell was likewise well spragged. The accident is classed as unavoidable. Recommended: That the method of mining this coal seam be changed. That on account of the steep pitch of the coal seam, the upraises be kept full of coal while the places are being advanced.

September 23—JOHN LEGAL, Austrian, pick miner, experience 22 years, age 47 years, married, two children, employed by the Leyden Lignite Co. at the Leyden No. 3 mine, Jefferson County, was injured on September 18, 1934, by a fall of face coal and died on above date. Deceased and three partners were pulling pillars, a connection had been made near the roof with another place. The coal is about six feet thick. Deceased was standing up and picking near the floor when the face coal gave way, striking him and causing such injuries as to cause his death. From the testimony of his partners, it seems that he might have saved himself had he stepped to the left instead of stepping straight back. He may have hoped that the prop knocked out by the coal would protect him against the coal fall. The accident is classed as unavoidable.

September 26—JOHN PARESS, Greek, pick miner, experience 22 years, age 51 years, married, three children, employed by the

Clayton Coal Co. at the Clayton mine, Weld County, came to his death by a fall of face coal. Deceased and his partner, Pete Jerfas, were working night shift pulling pillars between rooms. They had taken one slice 18 feet long off a pillar and were taking off a second slice. A thin stump was left which they were taking out by hand. It collapsed, killing Paress and injuring Jerfas seriously. The accident is classed as unavoidable. However, the recovery of such stumps is very dangerous and in order to minimize the hazard of the work, the following recommendation is made: That before stumps of coal left behind pillar work may be removed, the work must have the approval of the mine foreman.

October 6—E. F. PENNY, American, pick miner, experience 2 years, age 18 years, single, employed by the American Independent Coal Co. at the American Independent mine, Fremont County, was killed in a room off the main entry by a fall of top rock. The day before the accident deceased and his partner had taken down the top brushing to the coal face. On the morning of the 6th they fired a shot in the coal at the roadhead and were loading their second car when the fall occurred. This top rock or brushing is about three feet thick and in mining the coal they exposed about two feet of it, the width of the roadway, and under this they set two props about three and one-half feet apart, but an invisible slip on the right side of the road gave way and pulled clear across the roadhead parting to almost the center of the two props and a heavy fall of rock caught deceased in a stooping position, injuring him to such an extent that he died in a few minutes. The timbering of this room was very good. Mine foreman had visited the place about two hours prior to accident. The accident is classed as unavoidable due to the hazard of the work.

October 15—BENJAMIN MARTINEZ, American, machine runner, experience 19 years, age 37 years, married, six children, employed by the Aztec Coal Mining Co. at the Toltec mine, Huerfano County, came to his death by electrocution. Deceased and his helper had cut five places during the day and the helper had just set the jackpipe preparing to pull the machine to the upper rib to cut a cross cut. Deceased had hold of the chain and reached over to get hold of the friction lever to start the machine and was electrocuted as the machine was short circuited. When the machine was dismantled and tested it was found that the insulation had given way on one of the stator leads, causing a short. This machine had been overhauled about two weeks before the accident and had given no trouble since then. The accident is classed as unforeseen and therefore unavoidable.

October 18—WILLIAM S. CAMPBELL, Scotch, Superintendent and Mine Foreman, experience 30 years, age 47 years, married, three children, employed by the Gordon Coal Co. at the Gordon mine, Huerfano County, came to his death by being electrocuted. On the morning of the accident the tracklayer stated that

he smelled the odor of burning insulation and saw smoke coming from the back entry. He investigated and found that a fall of rock had taken place, tearing the power line from its fastenings and it lay on the damp ties and rock at the bottom. This caused a leakage in the line and burned the insulation. The tracklayer cut the power switch and lifted the power line and placed try ties under it for insulating purposes. Deceased arrived later and was informed by one of the drivers that there had been trouble with the power line and that smoke had been coming from the back entry. Mr. Campbell, the deceased, said that he would investigate and that was the last seen of him until his body was found the following night. There were no eye witnesses but from the conditions surrounding the point of accident there was a pool of water and to cross this, deceased evidently stepped on a wet tie lying in the water and he either slipped or the tie turned under his foot, causing him to fall, and his left hand came in contact with the power line, resulting in his being electrocuted. The power lines are well insulated but were evidently damp or wet from having been in the water. The accident is classed as a mishap for which no one can be held responsible.

November 5—JOE RAMIREZ, Mexican, machine miner, experience not given, age 41 years, single, employed by the National Fuel Co. at the Puritan mine, Weld County, was killed by a fall of coal. Deceased and seven partners were extracting room-neck and chain pillars at the most inby point of an entry. Here the top coal is left up to form a good roof. The first electric cut from the lift of the chain pillar was shot down and a few cars of coal loaded out when the assistant mine foreman visited the place and ordered as many as possible to load from the chain pillar. Deceased and five men began to load three cars from the chain pillar and while doing so a large piece of coal tumbled over and pinned deceased against the side of a car, causing such injuries that he died a few hours afterwards. The mine foreman had visited the place three hours prior to the accident. The place was well timbered and the accident was a mishap for which no one could be held responsible.

November 24—TONY SHAIN, Italian, pick miner, experience 20 years, age 39 years, married, three children, employed by the Victor-American Fuel Co. at the Delagua mine, Las Animas County, was injured by a fall of rock on September 19 and died on the above date. According to the evidence of his partner, deceased was mining coal on the inby end of a pillar and had mined about two feet when top coal and rock gave way from an invisible slip in the roof, dislodging two props and burying him under the fall. The mine foreman had visited the place two hours prior to the accident. It was well timbered and deceased was considered a good miner. The accident was unforeseen, therefore unavoidable.

November 26—DOMINICK SPAGNOLI, Italian, machine loader, experience 25 years, age 59 years, married, no children, em-

ployed by the W. A. Ream Coal Co. at the Spanish Peak mine, Huerfano County, was killed by a fall of rock. Deceased was working alone in a room and his body was found at quitting time under a fall of drawslate, about three feet from the face. The place was cleaned up and made ready for the cutting machine and in order for the machine to be moved to the face an emergency roadhead prop had to be removed four feet from the face. Deceased was chopping out the roadhead prop when the drawslate gave way from a visible slip. This visible slip was recognizable to both miner and mine officials. The fire boss had visited the place a few hours prior to the accident. The system of timbering should have been changed from single prop to cross bars. Had this been done, the accident might have been avoided.

Recommended and to be put into immediate effect: That where the roof is bad and the slip angles are traveling in different directions in the roof, that the places be cross barred instead of using single props only.

November 29—CHARLES HIGGINS, American, machine miner, experience 28 years, age 57 years, married, eight children, employed by David Allan, Crown mine, Boulder County, injured his finger on November 19 and died from an infection which set in five days later. He accidentally pinched his finger between a piece of rock and prop and had the doctor bandage it for him on the same day. A few days later blood poison set in and he was sent to the hospital. On the 28th it was found necessary to operate on him and he died the following day. The accident is classed as unavoidable.

December 10—JOHN J. DALY, American, switchman, experience 18 years, widower, no children, employed by the National Fuel Co. at the Monarch No. 2 mine, Boulder County, was caught between a fly wheel shaker screen engine and injured so seriously that he died a few hours later. He was caught while passing between the fly wheel of the shaker screen engine and the wall of the building. The clearance between the wheel and wall is fifteen inches. The shaker was in motion and he either stumbled or unthinkingly laid his hand on the belt, which threw him into the fly wheel. Had deceased waited until the engine stopped, the accident would have been avoided. The jury recommended that fly wheel be boxed or some other safety device be installed to prevent future accidents of this kind.

SUMMARY OF THE COAL PRODUCTION OF COLORADO FOR 1931 AND 1932

	1931	1932
Number of mines operated reporting production--	318	345
Number of new and old mines opened: New		
mines 6, old mines reopened 55, total-----	61	13 + 27 = 40
Number of mines closed 12, abandoned 6, total-----	18	8 + 5 = 13
Tons of sub-bituminous coal produced-----	2,686,132	2,502,873
Tons of semi-bituminous coal produced-----	158,972	183,600
Tons of bituminous coal produced-----	3,696,513	2,857,958
Tons of semi-anthracite coal produced-----	37,685	46,704
Tons of anthracite coal produced-----	24,761	25,390
TOTAL NUMBER OF TONS OF COAL PRODUCED -----	6,604,063	5,616,525
Decrease, 1931-----	1,634,031	987,538
Tons of run-of-mine coal produced-----	1,224,186	1,092,137
Tons of Lump coal produced-----	1,854,729	1,567,320
Tons of Nut coal produced-----	761,722	750,724
Tons of Pea coal produced-----	241,243	203,646
Tons of Slack coal produced-----	2,522,183	2,002,698
Percentage of Slack coal produced-----	46.9%	43.6%
Tons of coal mined by hand-----	2,334,304	1,790,969
Tons of coal mined by machine-----	4,269,759	3,825,556
Number and kind of machines used: compressed air 58; electric 339; total-----	397	61 + 243 = 404
Tons of coal mined for shipment; railroad 5,- 308,663; trucks and wagons 1,148,184; total-----	6,456,847	4,166,907 + 1,312,134 = 5,479,041
Tons of coal shipped out of the state-----	1,284,423	1,034,005
Tons of coal used at the mines for heat, power, waste, etc.-----	147,216	137,484
Tons of coal made into coke-----	439,189	186,753
Tons of coke made-----	264,269	115,943
Number of days coke ovens were operated-----	322.5	214
Number of men employed at coke ovens-----	76	44
Number of coke ovens used-----	266	144
Number of miners employed: pick miners, 2,565; machine miners, 3,394; total-----	5,959	2,474 + 3,047 = 5,521
Number of men employed in and about mines (average)-----	10,015	8,786
Average number of days worked (man-days)-----	139.7	134.7
Daily production per miner, tons-----	7.93	7.55
Annual production per miner, tons-----	1,108.25	1,017.3
Number and type of safety lamps used: flame, 664; electric, 9,018; total-----	9,682	338 + 7,835 = 8,223
Number of carbide lamps used-----	2,754	2,619
Number of pounds of carbide used (*approximate)-----	79,982	73,400
Number of pounds of black powder used-----	750,855	725,027
Number of pounds of permissible powder used-----	400,414	290,514
Number of pounds of dynamite powder used-----	30,256	50,255
Number of men killed: Underground, 19; sur- face, 3; total-----	22	28 + 1 = 29
Number of men injured-----	1,238	1,083
Number of men killed per thousand 300 day workers-----	4.75	7.35
Number of men killed per thousand employed-----	2.2	3.30
Number of tons of coal produced for each life lost-----	300,184	193,673
Number of men employed per fatal accident-----	455.2	302.96
Number of men killed per million tons of coal produced-----	3.33	5.18
Number of men injured per thousand employed-----	123.6	124.40
Number of tons of coal produced for each non- fatal accident-----	5,334	5,187
Number of men employed per non-fatal accident-----	8.1	8.11
Number of men injured per million tons of coal produced-----	187.5	192.82
Number of widows left-----	14	22
Number of children left fatherless-----	41	49

*A number of the mines did not report the carbide used as same was furnished by the employees.

SUMMARY OF THE COAL PRODUCTION OF COLORADO FOR 1933 AND 1934

	1933	1934
Number of mines reporting production.....	375	352
Number of mines operated and inspected by inspectors.....	421	429
Number of new and old mines opened: New 24; old 36; total.....	60	13 + 18 = 31
Number of mines closed: 29; abandoned, 1; total.....	30	7 + 16 = 23
Tons of sub-bituminous coal produced.....	2,425,047	2,325,548
Tons of semi-bituminous coal produced.....	154,002	195,432
Tons of bituminous coal produced.....	2,643,871	2,671,870
Tons of semi-anthracite coal produced.....	49,528	50,837
Tons of anthracite coal produced.....	12,424	7,316
TOTAL NUMBER OF TONS OF COAL PRODUCED	5,284,872	5,251,003
Decrease, 1933.....	331,653	33,869
Tons of run-of-mine coal produced.....	980,076	930,039
Tons of Lump coal produced.....	1,313,894	1,277,993
Tons of Nut coal produced.....	669,327	526,130
Tons of Pea coal produced.....	242,236	272,235
Tons of Slack coal produced.....	2,079,339	2,244,606
Percentage of Slack coal produced.....	48.5	42.7
Tons of coal mined by hand.....	1,932,619	1,913,960
Tons of coal mined by machine.....	3,352,253	3,337,043
Number and kind of machines used: Compressed air, 61; Electric, 302; total.....	363	63 + 365 = 428
Tons of coal mined for shipment: Railroad, 3,959,809; trucks and wagons, 1,193,703; total.....	5,153,512	3,970,735 + 1,142,746 = 5,113,481
Tons of coal shipped out of the state.....	1,037,062	600,847
Tons of coal used at mines for heat, power, waste, etc.....	131,360	137,522
Tons of coal made into coke.....	302,814	855,458
Tons of coke made.....	174,882	208,910
Number of men employed at coke ovens.....	160	78
Number of days coke ovens were operated.....	258	317.5
Number of coke ovens used.....	40	48
Number of miners employed: Pick miners, 2,005; Machine miners, 2,999; total.....	5,004	1,815 + 3,057 = 4,872
Number of men employed in and about mines (average).....	8,179	8,138
Average number of days worked (man-days).....	139.5	142.9
Daily production per miner, tons.....	7.58	7.53
Annual production per miner, tons.....	1,005.6	1,077.8
Number and type of safety lamps used: Flame 354; Electric, 7,457; total.....	7,811	352 + 7,393 = 7,745
Number of carbide lamps used.....	2,711	2,576
Number of pounds of carbide used (*approximate).....	101,813	69,924
Number of pounds of black powder used.....	777,265	678,455
Number of pounds of permissible powder used.....	273,907	273,446
Number of pounds of dynamite powder used.....	27,565	33,919
Number of pounds of Cardox used.....	37,472	-----
Number of men killed: Underground, 17; Surface, 3; total.....	20	20 + 1 = 21
Number of men injured.....	1,042	963
Number of men killed per thousand 300 day workers.....	4.73	5.44
Number of men killed per 1000 employed, actual days worked.....	2.20	2.58
Number of tons of coal produced per fatal accident.....	264,244	250,048
Number of men employed per fatal accident.....	409	387.5
Number of men killed per million tons coal produced.....	3.78	4.0
Number of men injured per 1000 employed.....	127.4	118.3
Number of tons of coal produced per non-fatal accident.....	5,072	5,453
Number of men employed per non-fatal accident.....	7.84	8.5
Number of men injured per million tons coal produced.....	197.17	183.4
Number of widows left.....	12	18
Number of children left fatherless.....	32	61

*A number of the mines did not report the carbide used as same was furnished by the employes.

Four mines reporting a production of 1,325 tons of coal came in too late to embody their production in the regular report.

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